

The Commercial Car Journal

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NUMBER 2

New Sixes and Gas-Electric Drives Feature A. E. R. A. Bus Exhibit

*Beauty, Comfort and Lighter Weight Indicates Trend of Design—
Nearly 40 Per Cent of Floor Space Occupied
by Bus and Equipment Exhibits*

WITH motor buses, bodies and equipment occupying nearly 40 per cent of the show held last week at Cleveland under the auspices of the American Electric Railway Association, the motor bus industry can feel justly proud of itself. To those visiting the show one of the lasting impressions registered is that motor buses are becoming more beautiful each year. The body manufacturers have done a yeoman job

rangements. The use of air cushions only 38 pounds complete. The seat frame is an aluminum alloy stamping thus saving about 500 lbs. weight in the average sized bus.

Among the new buses shown for the first time are the six-cylinder White; the Northland Coach, by Wilcox Trux, Inc.; the Liberty Motor Vehicle Co's., gas electric drive equipped with the Fraser electric unit and the Metropolitan Coach, an eight-wheel job, built under L. W. Coppock patents. The Mack six-cylinder job which was described in our last issue made its debut at the show. The American Car & Foundry showed its new gas-electric bus. The Six-Wheel Company besides showing a complete line of six-wheel coaches also announced its new six-wheel truck.

Below: The International Harvester Company's new 15 pass. coach Model SLC
This model may be equipped with four or six cylinders



The new Lang body with baggage space under the seats

in producing combinations of color harmony which are destined to create not only a more favorable impression on the public, but at the same time decrease sales resistance. Briefly the bus manufacturer has recognized the fact that the eye-appealing bus job sells a whole lot easier, no matter what size or price class it is in.

Much effort has been expended by the manufacturers toward securing the utmost in comfort. Considerable thought has been given to better seating ar-



More and more effort is being made to handle the baggage situation on inter-city buses. In some jobs special racks are being placed above the windows as in railroad day coaches. Of course this precludes the possibility of any advertising display. Others are utilizing the backs of the rear row seats by attaching a rack to them. A considerable number of the coaches shown utilize the roof, access to same being had by cleverly arranged folding treads on the side of the body.

A new baggage arrangement which involves the design of the body is that shown by the Lang Body Co., in which the seats are raised slightly on each side of the aisle. The space under the seats provides baggage space. The baggage compartment is lined and to say the least is thoroughly dust and waterproof. Another job shown has special doors at the rear giving access to baggage space located behind and underneath the rear seats.

There seemed to be a slight decrease in the amount of nickel plating used on the jobs shown. Although manufacturers appreciate the fact that an excessive amount of bright parts means more labor to keep them clean, still the owner insists upon it. In other words the public wants to ride in something that looks classy. That the builders of railway equipment have sensed this same situation is proven by the number of beautifully painted trolleys that were displayed.

A number of observation type buses were shown, while some clever arrangements were seen in the methods of handling spare tires. One job showed two tires mounted side by side at the rear. The effect was extremely pleasing as the tires were set in heavy cast aluminum brackets. Highly colored leather effects with wicker seats done in brilliant striping indicated the extent to which color has been employed to please the eye.



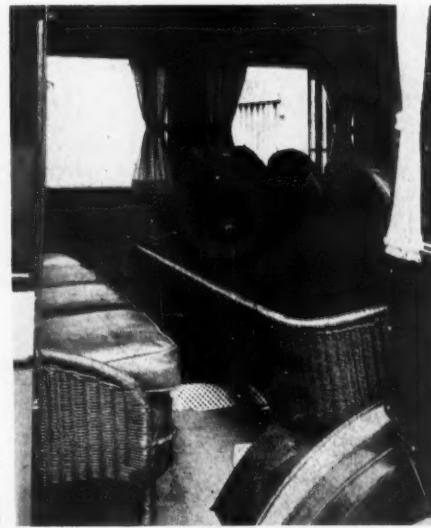
Perfect radiator built specially for the Liberty bus

The shell is bolted to the dash. The core and tank assembly is hinged at the bottom. The core may easily be removed without disturbing the shell at all.

White Announces Six-Cylinder Bus

The big feature of the White exhibit was the introduction of a new six cylinder motor bus. This new job has excited considerable interest. Its outstanding mechanical features may be summarized by the following: 100 hp. engine; overhead valves; seven bearing crankshaft; four wheel metal-to-metal air brakes; 9 in. balloon tires; double drop frame and two stage springs. This six cylinder White is designed to provide speed through the country and flexibility in the city with increased performance and with safety control. Increased riding comfort is provided and the low chassis permits easy passenger ingress and egress.

It has a wheelbase of 227 in. and carries from 18 to 23 passengers in a de luxe model with a baggage compartment for interurban service, and 25 to 29 passengers in a pay-enter model without baggage compartment for city service.



Method of carrying small parcels as seen on the Reo sedan type bus



The Aero aluminum seat, showing frame work which is stamped from an aluminum alloy

International Harvester Exhibit

An attractive 15 passenger parlor coach designated as Model SLC, was the feature of the International Harvester Company's exhibit. Two other models were also on display, a 23 passenger parlor coach and a 29 passenger pay-enter city service coach.

The new model which is designed to help round out the comprehensive line of the International Harvester Company, may be equipped with a four cylinder, or a six cylinder engine, as desired. The dominating thought of the International Harvester engineers who designed the SLC coach has been to produce a moderate sized vehicle that has all the characteristics to be expected from a modern coach of any size. Briefly, these attributes are especially designed chassis; smooth, noiseless operation; low center of gravity; minimum height of coach floor from ground; large comfortable wicker chairs; roomy seat spacing; attractive appearance and appointments; unobstructed vision; and attractive and decorative interior.

Special effort has been made to produce a chassis for this coach that will insure long life and continuous operation. The body is of the latest coach type of composite wood and steel construction.

The Air-O-Pure System

The Air-O-Pure Vaporizer exhibited by the Air-O-Pure Co., Hanna Bldg., Cleveland, Ohio, purifies the air by neutralizing foul odors and obnoxious gases. It is operated by the heat generated from any standard electric bulb. The heat liberates into the atmosphere a compound of highly volatile oils and coal tar derivatives.

The bus vaporizer is constructed from aluminum in one piece, especially formed and polished. Vaporization is controlled by a light switch.



Aero Aluminum Seat

This seat developed for bus use, was announced for the first time by Alex. Wolfgangton's Sons, Inc., 19th & Buttonwood Sts., Philadelphia.

Made of aluminum, these seats weigh only 38 lbs. with cushions and backs. The use of them in the average bus would mean a saving of 500 lbs. per unit. Briefly, the seats incorporate seat comfort, durability, flexibility, and economy of space, together with weight reduction.

Design permits reception of baggage under seat. Seats can also be tilted forward and cushions and backs removed for general interior cleaning. The seats are rubber shock insulated and the bed is of helical spring and flexible steel web construction.

American Brakeblok

The American Brakeblok is a new friction element developed by the American Brake Shoe Foundry Co., 30 Church St., New York, for use on heavy duty automotive vehicles.

The blok embodies a new principle in automotive retardation which is said to assure maximum braking efficiency, durability and minimum maintenance. These bloks can be used on vehicles equipped with foot or power brakes.

The bloks require less than one-third of the area of the drum, have no metallic contents, are not affected by water, oil or grease, and are readily replaceable.

Morrison Bus and Truck Jack

The Morrison Jack Co., Alliance, Ohio, developed and announced for the first time, three models of automatic bus and truck jacks, designed for specific duty.

These three models are known as the Tug, which is electrically operated and designed for heavy duty service; the Speeder, also electrically operated, a lighter design but for general service; and the Placer, which is manually oper-

ated and designed for light service, such as tire changing.

The Tug is equipped with a high speed universal motor, controlled by a reversing switch which automatically reverses its action when it has reached the limit of travel in either direction.



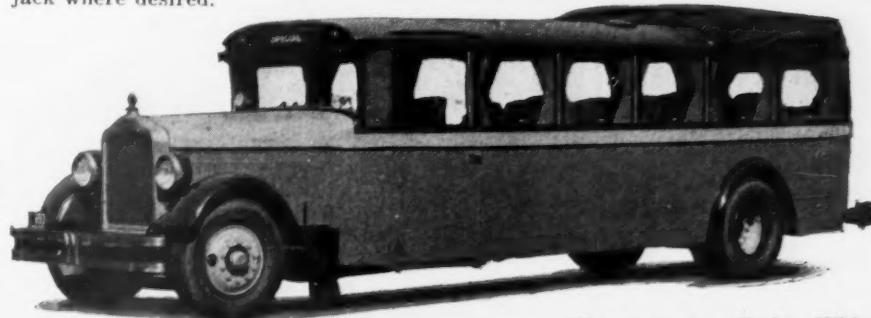
The six-wheel truck made its debut at the A. E. R. A. show

Details of this new model will appear in our next issue

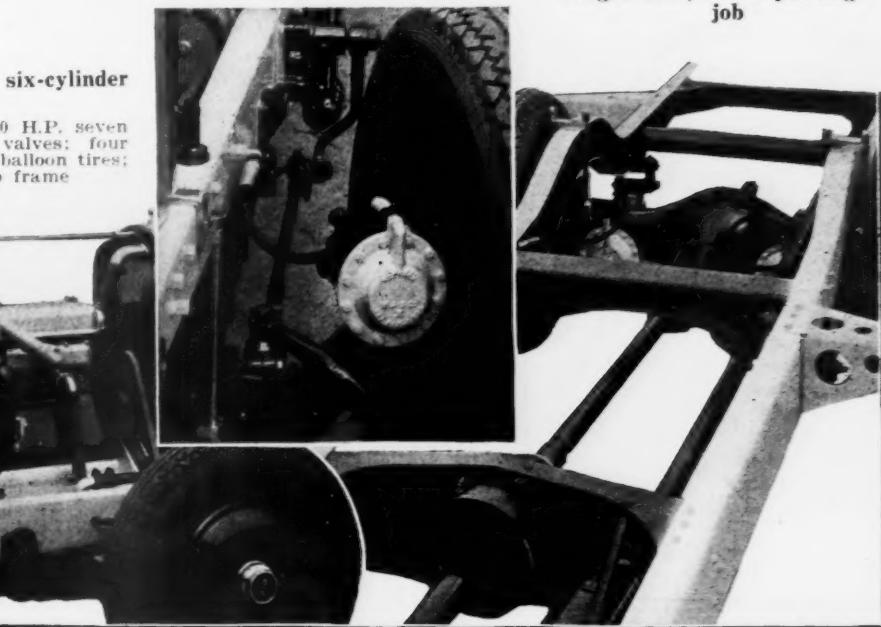
This jack has an 8 in. lift with a graduated range of starting points ranging from 6 to 10 in. This jack is ruggedly constructed and requires less than one minute to raise the heaviest bus or truck full range.

The Speeder consists of a Morrison automatic, double-range, heavy duty jack, geared to a high speed universal motor. The handle can be released and lowered to the floor for convenience of the workman.

The Placer is a Morrison automatic, double-range jack with a special handle permanently attached by means of a universal joint and a simple locking device which effects a rigid connection between the handle and the jack. It permits a quick and accurate placement of jack where desired.



The new six-cylinder White single deck, 18-29 passenger job



Detail views of the new White six-cylinder bus chassis

The features of this model include a 100 H.P. seven bearing crankshaft engine; overhead valves; four wheel metal to metal brakes; nine inch balloon tires; two stage springs and double drop frame.



Metropolitan Eight - Wheeler

The Metropolitan Coach and Cab Corp., Cleveland, Ohio, exhibited for the first time its eight wheel, 32 passenger coach.

**The Metropolitan high-wheel coach chassis**

A feature of this job is that the "trucks" both front and rear are readily removable, as the chassis is built on the three unit construction principle.

A feature of the Metropolitan chassis is its three unit construction, with independent front and rear "trucks." The front and rear axles with rigid subframes, form the first two units and the main frame of the coach, carrying the hood, steering gear and transmission, forms the third unit. While the front and rear truck units are of rigid construction, they admit a flexibility of axles to meet varying road conditions. The axles are so mounted in connection

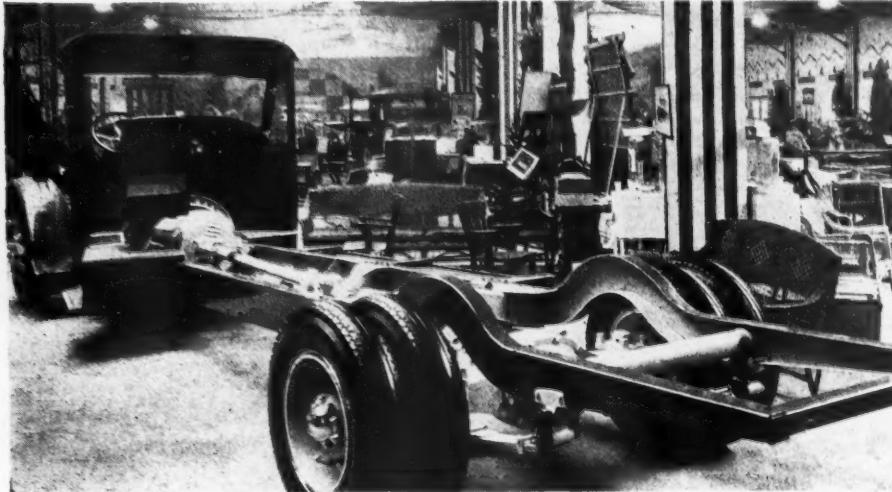
Liberty Gas-Electric Bus

A light weight chassis, clean-cut design and an electric control are features of the gas-electric Liberty bus.

This new bus is built around an electric transmission invented by E. M. Fraser. Among the unusual features is the location of the engine, radiator and control on a sub-frame secured to the main frame. The power units can be slid out on skids in a few minutes when inspections are necessary. The

core of the radiator can be removed by dropping the shell forward and by removing four screws. Removal of the power unit does not involve removal of the wiring, as all electric contacts are automatic. It is only necessary to disconnect the muffler pipe, gas and oil lines, and these are so designed as to make such disconnections simple. Braking is done entirely with the engine and the construction is such that the full power of the engine may be used for this purpose.

(Continued on page 17)

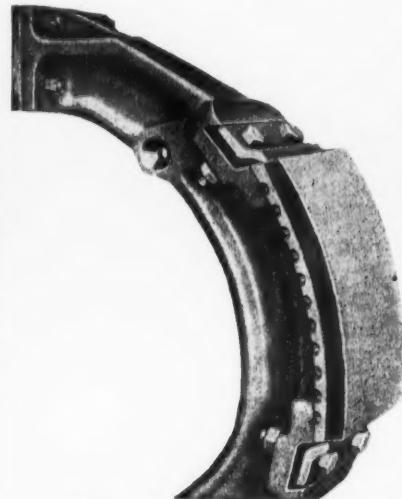
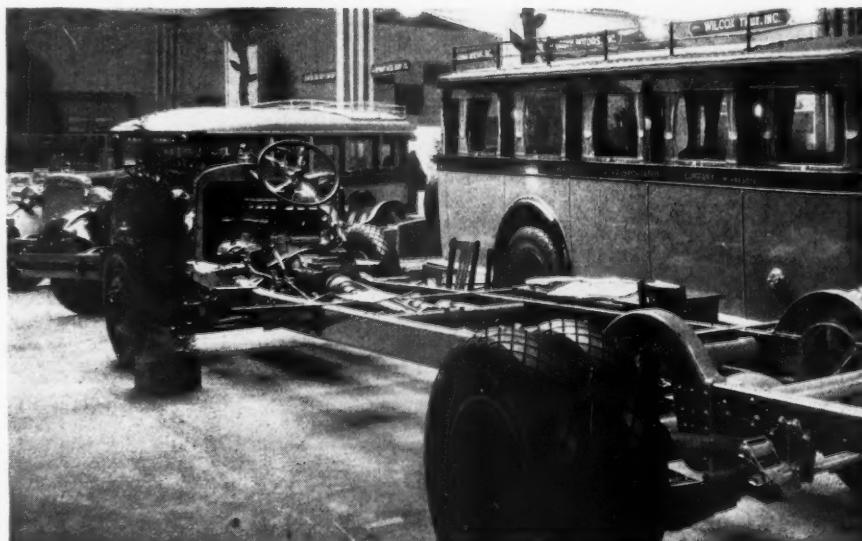
**Rear view of the Liberty gas-electric bus**

with the sub-frames, that alignment is maintained at all times. The caterpillar action resulting from the "truck" construction, gives a smooth, shockless, vertical action to the main frame as the coach mounts road irregularities.

All four wheels of the forward "trucks" are actuated by the steering gear. The wheels of the rear unit "track" without side slipping.

Interchangeability of units, standardized repair methods and servicing equipment are pointed out as being the contributing factors for maximum productive service.

Among the units assembled in this new chassis are: Continental six cylinder, $4\frac{1}{4}$ by $5\frac{1}{4}$ engine, developing 72 hp. at 1500 r.p.m.; Bosch high tension magneto, with impulse coupling; Zenith carburetor and Autopulse dual pump; Northeast generator and self-coupling;

**The American "Brakebok"**
(See description page 9)**The Northland coach shown by Wilcox Trux Co.**

(Description page 17)

Make Every Call NEWSY!

Make your prospects feel glad to see you no matter how often you call, by injecting timely and newsy ideas into your sales talk.



By Frank H. Williams

THE more calls the commercial car salesman makes, the more sales he makes. That is axiomatic.

However, when in the ordinary course of events, the commercial car salesman calls quite frequently on all his prospects, his calls become rather stale. He may, in fact, simply present the same old arguments in the same old way and hope to beat down sales resistance simply by wearing the prospect out.

Of course, many sales are made in this way but it is found by some live wire, highly successful commercial car salesman that a much better plan than simply wearing down the sales resistance of prospects, is to inject a newsy touch into each call and so make the prospects actually glad to see the salesman no matter how many times the salesman has already called.

Just what is meant by this? And just how can other salesmen cash in on this same proposition?

By making each call newsy it is meant that every time the salesman calls on a prospect he will present some matters concerning the truck he is selling which will appeal to the prospect because of their freshness, newsiness and importance.

At first thought it might be considered a very difficult proposition to do this. But it isn't as difficult as it seems.

Here, for instance, are some sugges-

tions which salesmen might present to their prospects when making calls:

Names and addresses of individuals and concerns who have purchased trucks from the agency since the salesman's last call on the prospect, together with ways in which the purchasers are using the trucks and together with complimentary things said by the purchasers regarding the trucks.

Names and addresses of owners already having fleets of the trucks who have recently purchased additional trucks from the agency, together with the reasons why the owners have made these purchases, these reasons being given in the owners' own words.

Tell 'Em How It's Done

Information regarding the sales arguments which the salesman is finding most effective in putting sales of the trucks across to other prospects and reasons why these sales arguments are proving so effective. To present the sales arguments to a prospect in this way would be to give a newsy slant to the proposition while, at the same time, the arguments were impressively presented.

Points emphasized by the dealer or his salesmanager in the regular salesman's meetings and things said by the dealer or his salesmanager regarding the best

ways of making sales. This, too, would enable the salesman to get his sales arguments across while he would invest them with a newsy touch which would make them unusually interesting to the average prospect.

Information regarding the things done by the service department of the agency in taking care of owners' trucks. Here there is a particularly fertile field for newsy stuff which will be of real help to the salesman in making more sales. The salesman could discuss the careful way in which the service department of the agency checks up every truck that comes in for service for the purpose of seeing what additional repairs or adjustments may be needed for the purpose of making these repairs or adjustments at the time the truck is in the garage. Also, in connection with this, the salesman could explain how the agency keeps track of the repair costs on the various trucks coming into the service department for the purpose of determining just what maintenance costs on the trucks sold by the agency are per year. This would lead into the subject of costs and comparisons which is always of interest to user prospects. And so on along the same line.

Information regarding the way in which the sales of the agency are increasing. Everyone likes to get inside

(Continued on page 16)



Christopher J. Hayden, who in four years has established a chain of sales and service departments and built up to a gross of three quarters of a million dollars

ON the last day of the year 1922, Christopher J. Hayden, of the Hayden Automobile Company, Stamford, Conn., embarked in the truck business. Contrary to the prediction of contemporary truck dealers, Hayden, twenty months later, opened another place in Norwalk, 9 miles distant, and a year later, still another in Bridgeport.

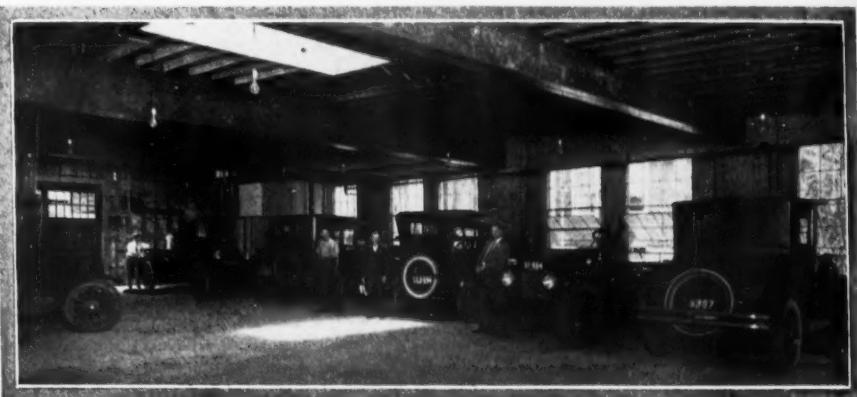
Despite the pessimistic truck dealers Hayden's volume grew. In four years his methods have resulted in a gross of \$750,000 in 1925. He is shooting at the million mark for 1926. He employs no spectacular stunts or circus advertising. Neither has he any special merchandising plans. Ask him the rea-

After the MILLION in 1926

That is the aim of Christopher dealer of Stamford, Conn., four

Successful truck merchandising largely a matter of sincerity and conscientious application of common business policies

By C. P. Shattuck



Above: Ample storage and repair facilities characterize all Hayden's service stations



sons for his success and he will reply, "Close attention to business, employing sound fundamental business principles and making a business appeal to the thinking type of business men who are prospects for trucks."

Hayden could have made that million mark gross last year if he had not adhered to his rule of business at a reasonable and fair profit. While big gross profits look pretty it is not so attractive as the proper net profit. And it is the proper net profit that gets Mr. Hayden's attention when he scans the statements of his three establishments.

Left: The stock or parts rooms of all three service stations are standard and so complete that a new truck could be assembled

Mark

*J. Hayden, truck
years after start.*



Having been in many branches of the automotive industry, including service, Hayden believed in one of the fundamentals of truck merchandising; the buyer must be afforded prompt service at a reasonable cost. He also believes that the business house using trucks and making deliveries in a radius of 30 miles, for example, should be supplied with service that will avoid long distances of travel.

The territory handled by the company is about 33 miles long and about 30 wide. From Stamford to Norwalk is 9 miles. It is 14 miles from Norwalk to Bridgeport. These places are on the New York-Boston main highway, and between are small places. From the main highway to the border of the county from the Hayden service stations is about 9 miles. Thus it will be seen that the chain of service stations are strategically located. In addition there is a dealer at New Canaan and at Bethel, both within a short distance of Norwalk and Bridgeport.

Hayden refers to his plan as the chain service, it having always been his idea to so cover his territory with service stations that any customer could obtain service within a reasonable distance. A driver of a Bridgeport truck can charge service at Stamford or Norwalk. The service is standardized, the customer paying the same rate for labor and material in any of the service stations. It is said that under given mechanical conditions the cost of an

operation is quite similar in all stations. From this it may be assumed that the production—labor—is about the same.

Large Parts Stock

The parts stock of the three stations inventories about \$20,000, and is most complete, Hayden stating that a complete truck, chassis and body, could be assembled. The parts stock is balanced. The stock of quick moving parts is the same in each station but the slower moving, such as frames, engine blocs, etc., are divided among the three places. This reduces the inventory but does not decrease the efficiency of the service for a service parts truck operates between Stamford, Norwalk and Bridgeport, and any unit or part delivered in a very short time.

Each service department is in charge of a head. Similarly each branch has its own manager. While the three are under one head, they are operated practically as separate establishments. The heads of the departments, including the managers, are those who started at the bottom and worked up. This is a policy of Hayden's. He believes that the interested employee, the type that does not rate his compensation by the clock, is entitled to consideration, so whenever there is an opening the man is picked from the ranks. This, plus the fact that the managers receive a bonus or commission in addition to a salary, provides an incentive.

Above: The first Hayden establishment at Stamford, Conn.

Left: The store, machine and repair departments were plotted out with an eye toward expediting all service work

There is competition, of course, between the three establishments, which keeps the heads of the department on their toes. This competition exists not only in the sales force but in the service department. And it is interesting to note that all three are in black ink and there is always plenty of work. As a matter of fact the service department is reaching out for more room for the demands for service and sales are increasing.

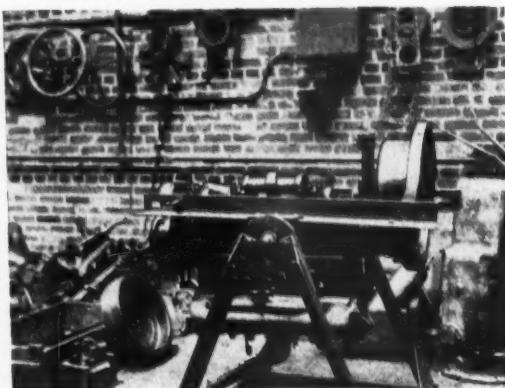
There is nothing unusual about the service departments. These are conventional as to equipment, methods, etc., but there is a difference in results, i. e., production. The Hayden Company is not bothered with changes in its mechanical staff. New England breeds good mechanics and, if paid right, and treated right, they will produce.

Hayden says that changes are rarely made. If a new mechanic is put on he must be good for it does not take the "gang" long to discover the would-be mechanic. The men, and all employees for that matter, are given the usual vacation with pay, paid when out with illness, for holidays or when away. Mechanics are not laid off in the winter. They get their salary if they do not spin a wrench, but, there is always plenty of work which tends to prove that it is possible for a truck dealer to render service that satisfies.

That word courtesy, so often mentioned but less practiced, will be found at any of the Hayden establishments. No matter who the caller, at the office, salesroom or service station, he is treated courteously. Hayden practices

(Continued on page 39)

EQUIPMENT REDUCES:
 (a) Cost (b) Time (c) Delay



Engine stands are essential for overhauling heavy duty engines. Size and weight render make-shift supporting methods costly from the standpoints of time and labor.

AN engine overhaul is a first class test of shop efficiency. Skill, equipment and knowledge are required. Without them engine reconditioning cannot be performed on an economical basis.

Lack of skill brings about immediate failure of improperly fitted and repaired parts, or at best, a short interval until another overhaul is required.

High cost, delay and poor workmanship are found where up-to-date equipment is not available. Lack of knowledge causes all the troubles mentioned, and more.

For an example of lack of skill note the bearing shown in the illustration labeled "Cause" on the next page. The babbitt has been gouged and hacked rather than scraped. The dark sections are several thousandths of an inch lower than the light areas. Consider also how such a carelessly fitted bearing endangers all of the bearings in a pressure-lubricated engine because it allows oil to squirt out, robbing the other bearings.

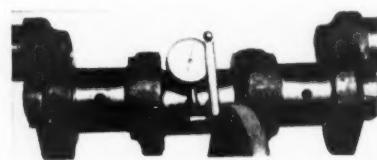
It requires about three days for a mechanic to properly hand-scrape a set of main bearings. If undersize bearings are being used with a reground crankshaft more time may be needed.

With special main and camshaft bearing machinery fitting of mains and camshaft bearings can be completed in one day. The connecting rods can also be fitted during the same time by another mechanic using a connecting rod tool. This indicates the higher cost and loss of time which result from lack of equipment.

The importance of knowledge on the part of a mechanic may be illustrated in many ways. The difference in fitting a connecting rod in a pressure lubricated engine rather than a splash lubricated one and the consequences of putting a connecting rod with offset piston in backwards are two of the more obvious.

SKILL PERMITS:

- (a) Precision
- (b) Speed
- (c) Short Cuts



In the hands of a skilled mechanic a dial indicator gives a true version of crankshaft condition, revealing out-of-roundness or out-of-true in thousandths.

Removal of the engine from the frame, reconditioning of crankshaft and main bearings and the camshaft and its bearings and drive distinguish major engine overhauls from top overhauls and similar operations. See "What Constitutes a Top Overhaul," page 10, August issue Commercial Car Journal.

Steps of the Work

A portable work bench, preferably with a vise, boxes or bins for holding groups of small parts separately and an overhead hoist are essential for removing the engine. A little planning in advance and familiarity with the vehicle under repair will save much time in removing the engine from the frame. Such a thing as taking the exhaust pipe off before or after the gasoline pipe may make a considerable difference in time. Therefore, the sequence of operations in removing various controls should be studied.

Engine support bolts are often troublesome to remove and the special wrenches required in each case must be ready if loss of time is to be avoided. Balancing the engine as it is hoisted from the frame is another time saving

Three Essen t Over h Skill... Equip m

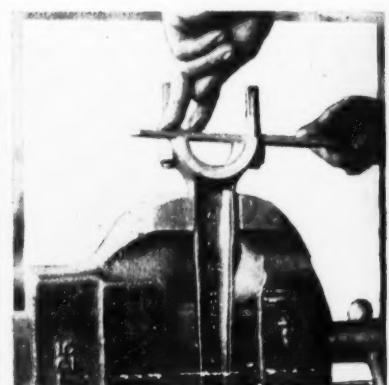
Without these engine reconditioning cannot be performed on an economical basis.

By

James W. Cottrell

KNOWLEDGE PREVENTS:

- (a) Errors
- (b) Omissions
- (c) Duplication



Bearing caps may require filing to fit connecting rod. Bearing edges should extend above rod surface to insure positive seating of bearing shell.

scheme. The use of special eye-bolts which screw in the spark plug holes, or brackets which are bolted to the engine studs and two lengths of chain attached to a large hook or circle will enable the mechanic to balance the engine in the hoist easily and surely.

Cleaning of the engine assembly is one of the most unpleasant tasks connected with an engine overhaul, when hand methods are used. A preliminary cleaning with steam is used in some shops before the engine is removed from the frame. In others, the engine, suspended by the hoist, is moved on an overhead track and lowered into a cleaning tank in which patented cleaning materials or kerosene are employed.

Ten tials of Engine over haul Equipment... Knowledge

From the cleaning tanks the engine is moved to an engine stand and bolted in place.

Disassembly and Inspection

Thorough inspection and accurate measurements of all wearing parts is in order during the disassembly. The oil pan is removed, cylinder head is taken off and connecting rod assemblies taken out. The camshaft and crank-shaft are lifted out.

Measurement of the crankshaft at this point determines the extent to which work on the main bearings is to be carried out. The shaft is mounted on a bench in two V blocks and the bearing surfaces tested with a dial gage. Out of roundness may be measured with a "mike" and it is customary to measure each of the bearing surfaces in this way. However, a "mike" will not show whether the shaft is running out of true and the dial gage is used on each of the main bearing surfaces to determine this point.

If the crankshaft needs regrinding the work on the main bearings is sometimes held up until the crankshaft has been reground. The condition of the cylinder bores is measured with inside micrometers, a special form of dial gage, or by measuring clearance between cylinder wall and a standard piston with ribbon shims.

Limits of Variation

A taper of more than .005 calls for reconditioning of cylinder bores. The limit of out-of-roundness is less. Many shops will not pass a cylinder which is more than .003 out of round. Wear shows in both taper and out-of-roundness and need for refinishing cylinders can be determined by either measurement.

Limit of out-of-roundness for crankshafts varies slightly according to the diameter of the shaft bearing surfaces. Three thousandths is the limit for eccentricity of crankshaft journals, measured through the center of the bearing surface. Some shopmen like to keep within .0025, while others allow .0035 or .004 before regrinding. The last figure is high.

Camshaft size limits are held closer than similar dimensions of crankshafts. Two thousandths is the limit of variation in bearing size and eccentricity.

Despite the larger size and slower speeds which characterize heavy duty engines balancing is not less important in overhauling them than is the case with passenger car engines. A limit in balancing weight of 1 oz. of connecting rod assemblies for large engines is standard in many service shops. Piston weight tolerance of $\frac{1}{4}$ oz. is attained in regular production and a greater variation should not be allowed in repair work.

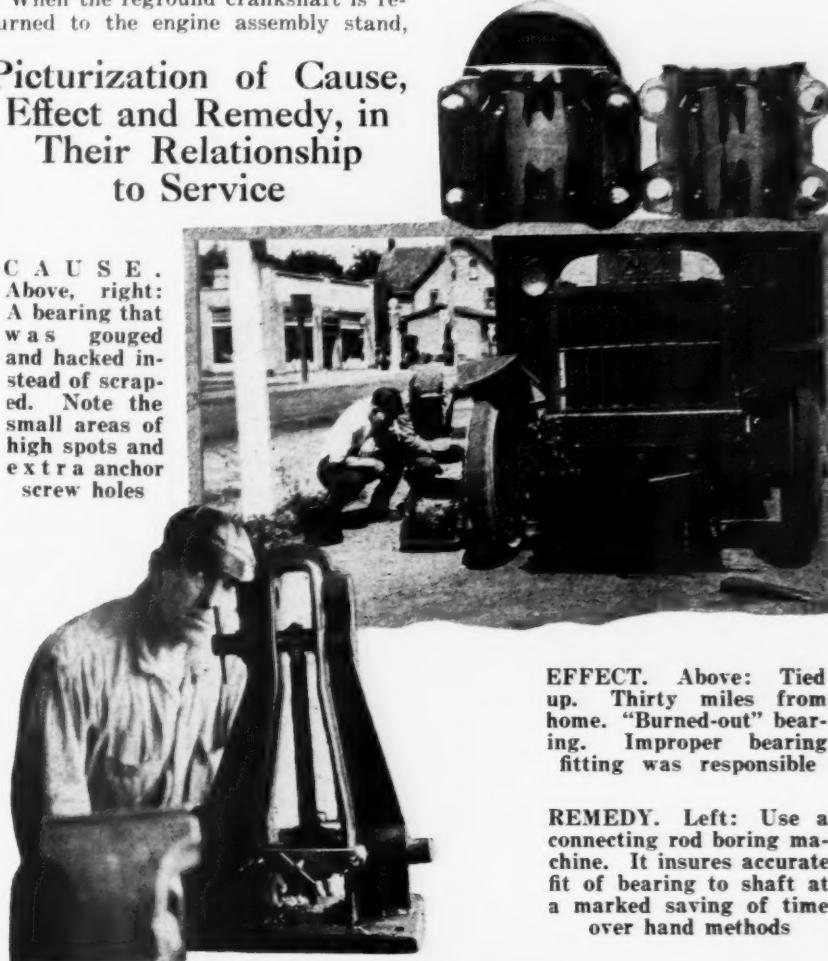
Boring, reaming, honing and grinding are used to recondition cylinder bores. Regrinding with a final finishing operation with a hone is used in many shops with success.

Reconditioning of the cylinder walls will be required in practically all major overhauls. New pistons, rings, piston pins and bushings are installed in all cases.

When the reground crankshaft is returned to the engine assembly stand,

Picturization of Cause, Effect and Remedy, in Their Relationship to Service

C A U S E .
Above, right:
A bearing that
was gouged
and hacked instead of scraped. Note the
small areas of
high spots and
extra anchor
screw holes



the next step is fitting the main bearings. Undersized main bearings are used and these are reamed to accurately fit the new size of the shaft. The fit of the main bearing shell in the crankcase and main bearing cap is especially important and the mechanic must be sure that the bearing shell is seated firmly before proceeding with the reaming operation.

Main Bearing Reaming

Many types of main bearing reamers and boring bars are available for reaming the main bearings. Space will not permit a detailed description of main bearing work with these tools. This subject will be dealt with in a special article in a coming issue.

Hand scraping of the connecting rod bearings is very wasteful of time, especially if an undersized shaft is being used. With the size of the shaft known it is a simple matter to bore out the connecting rod big end on a machine so that hand scraping is unnecessary. A clearance of .0015 to .002 in. is usually allowed on connecting rod bearings.

After boring the connecting rod big end and fitting the piston pin to the upper end, the rods are always checked for twist and bend. Aligning tools of various kinds may be employed. If these are not available, a bevel protractor can be used. All the benefit of fitting new bearings is more than offset by a bent or twisted rod.

Fitting of new timing gears or tim-

ing chains and sprockets is included in the major overhaul. The work can be done easily at this time and it is not wise to take chances on camshaft drives that have almost but not quite reached the end of their useful life.

Valve lifter assembly and valve guides should also be reconditioned during the major overhaul. It is impossible to get an accurate adjustment of valve stem clearance with a worn valve lifter or valve lifter guide and a badly worn valve guide will bring about need for regrinding valves at short intervals.

True Running Flywheel

A check which should be made during the major overhaul is the true running of the flywheel. The crankshaft which has been assembled in the main bearings and the flywheel bolted in place should be turned over by hand and a check made with a dial gage or other accurate measuring device to make sure that the flywheel runs true.

It will be noted that a large part of the accurate work on major overhauls is done by machine tools and that the work at the engine stand is largely that of disassembly and reassembling parts. This fact does not, however, do away with the need for skill and accuracy in workmanship on the part of mechanics doing the assembly. A little touch with the bearing scraper to relieve the edge of a bearing, careful check of the fit of every part put in place, oiling of each bearing surface as it is assembled are but a few of the many points a mechanic on this part of the work can contribute to a satisfactorily completed job.

Gaskets, bolts, nuts, lock washers, cotter pins and other small parts should be at hand during the assembly period. A great deal of time can be lost by mechanics chasing back and forth from the stock room to get these seemingly unimportant parts.

When completed the engine is taken to a test stand and run in by power to limber it up. With the completion of assembly a coat of paint on the exterior of the engine will add greatly to its appearance and increase the likeli-

hood that the driver will keep it cleaned after installation in the vehicle.

Minor Units

An overhaul of all of the minor units is performed during the work on the engine. Fan bracket and bearings, carburetor, vacuum tank, ignition unit, spark and throttle control, wiring, switches, and clutch are checked and repaired during this time. With the engine in place the various units are attached and the job is ready for test.

Of course it is possible to work an engine out of the frame with a rope sling and a lot of muscular force. It can be disassembled on the floor and the parts scattered about. The crankcase can be turned upside down on the floor and the main bearings scraped by hand with the hope rather than the assurance that the crankshaft is in good condition, connecting rods may be replaced with the same fond hope that they are all right, but such methods take a lot of time, cost a lot of money, and result in poor jobs.

The test of an engine overhaul is the length of time the engine will run before another major overhaul is required. The ideal is that the overhauled engine shall run just as long as it did before the first overhaul was required. If an engine runs 25,000 miles before an overhaul is required, and only runs 12,000 miles before a second one is necessary, it is evident that the overhaul has not put the engine in the best possible condition.

The operating life of an overhauled unit is the real test of shop efficiency.

the trucks they operate, represents another angle. In this connection salesman could explain the delivery systems worked out by himself or the agency for establishments in the territory for greater economy, showing how to cover routes with less mileage and trouble. The salesman could tell, too, how contracts and business is secured by the agency for some of the owners of trucks bought from the agency. And how the agency passes on to owners, by means of mimeographed bulletins, information that it secures about ways and means of cutting down the expense of operating trucks.

Information regarding objections raised by some of the salesman's prospects when urged to buy trucks and further information as to the way in which the salesman overcame these objections. This would be new and newsy in many cases because so many salesmen like to convey the impression to prospects that no other prospect has ever before raised serious objections to purchasing a truck. So prospects are naturally curious as to the objections raised by other prospects and how they were overcome. They become attentive. All of which helps greatly in putting sales across.

Information regarding the many different ways in which the owners of trucks in the territory, employ their trucks is interesting. A complete list of the different uses to which truck owners in the territory are putting their trucks for presentation to a prospect, together with some explanatory words about the whole proposition, is not only interesting but would help greatly in making a prospect realize that the truck he was being urged to purchase was just the right thing for his business.

The presentation of news as the foremost feature of each repeat call on a prospect would, inevitably, make the salesman's talk snappier, more interesting and more vital. And this, of course, makes an exceedingly good impression on the prospect and in turn makes it just that much easier to sell the prospect.

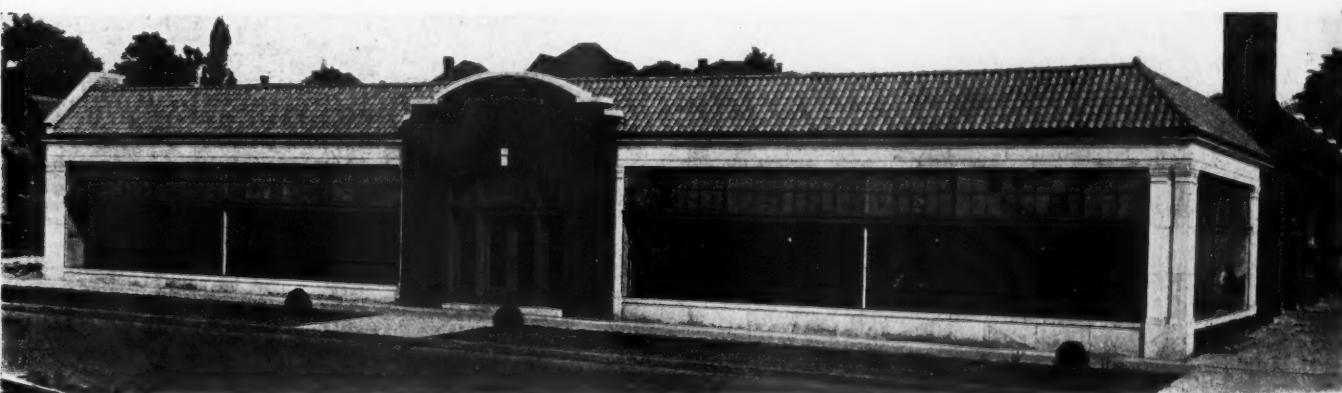
Get more news into YOUR calls, Mr. Salesman. You'll find it is mighty good business to do so.

Make Every Sale Newsy

(Continued from page 11)

information concerning business in which they are interested. Consequently it would be very interesting news to the average truck prospect to learn that the truck he is considering is growing popular in the territory.

Information regarding the manner in which the agency is striving to help its owners to get greater profits out of



Designed exclusively for the merchandising of trucks

This new home for displaying, storing, selling and servicing motor trucks was recently completed for the Birmingham branch of the Federal Motor Truck Co. It is equipped to handle business for the entire state of Alabama. The service shop at the back has been equipped with modern shop and tool equipment which will materially reduce service operations.

Liberty Gas-Electric Bus

(Continued from page 10)

Buttons for the control of the bus are located on a control box directly beneath the spider of the steering wheel. The control box also serves as the instrument board.

The vehicle shown has a 232 in. wheel base and its Motor Wheel Company's spoked wheels, carry 38 by 8.25 balloon tires. The engine is a six cylinder Waukesha; radiator, Racine; axle, Eaton. Chassis lubrication is provided by Bowen "one-shot" system. The frame is of S.A.E. 2330 alloy steel, heat treated.

Wilcox Trux, Inc., Northland Coach

The Wilcox Trux Co., Inc., Minneapolis, Minn., exhibited a 241-in. wheel-base chassis built to specifications of the Northland Transportation Co., the bus operating subsidiary of the Great Northern Railway, which renders bus service over 3000 miles of highway in Minnesota.

Power is supplied by a Waukesha 6-A $4\frac{1}{2} \times 5\frac{1}{2}$ in. engine and is transmitted through a Brown-Lipe clutch and transmission, a double universal shaft, equipped with a large self-aligning ball-bearing center bearing to a worm drive, inverted type, full-floating, rear axle. The cooling system includes a gear-driven centrifugal pump, and an assembled type radiator with cast aluminum side supporting members. The frame is double drop type, to permit low center of gravity, with cross members of seamless steel tubing. Springs are semi-elliptic front and rear. Steering is through a cam and lever type gear. Service and emergency brakes are on rear wheels and B-K booster brakes

are standard equipment. Either Westinghouse or Christensen air brakes are supplied as special equipment. The disk steel wheels are equipped with 38 by 7 high pressure, or 40 by 9 balloon tires.

Spicer Bus and Truck Universal

The type "O" oil lubricated, bus and truck size universal joints, were exhibited by the Spicer Associated Companies for the first time at the show. The oil of these joints is held in by a one-piece ring which also keeps the parts of the joints in permanent alignment. These joints are said to be capable of running for several thousand miles without oil renewal.

Heywood-Wakefield Company exhibited a complete line of bus seats as well as a new seat for drivers. This seat is mounted on an adjustable pedestal providing four different heights, plus a forward and back adjustment of three inches.

Northeast Electric Exhibit

Of particular interest among the exhibits of the Northeast Electric Co., were the Mono-control windshield cleaner and the new ball bearing ignition units.

The Mono-control windshield cleaner is of the one-piece swinging type, but instead of being hinged at the top is hung on trunnions at the end of the top cross member, which engage in bronze bushings set in to the corner posts. It is operated by a crank which can be located at any point along the top cross member. Compensating spring adjustments are provided to overcome sideplay and end thrust.

The new ball bearing ignition unit is furnished with either manual, semi-automatic or full automatic spark advance, and for either left or right mounting. It has been developed particularly for heavy-duty bus service and is available with spark advance in conformity with the characteristics of the engine to which it is applied.

Three-Way Dump Body

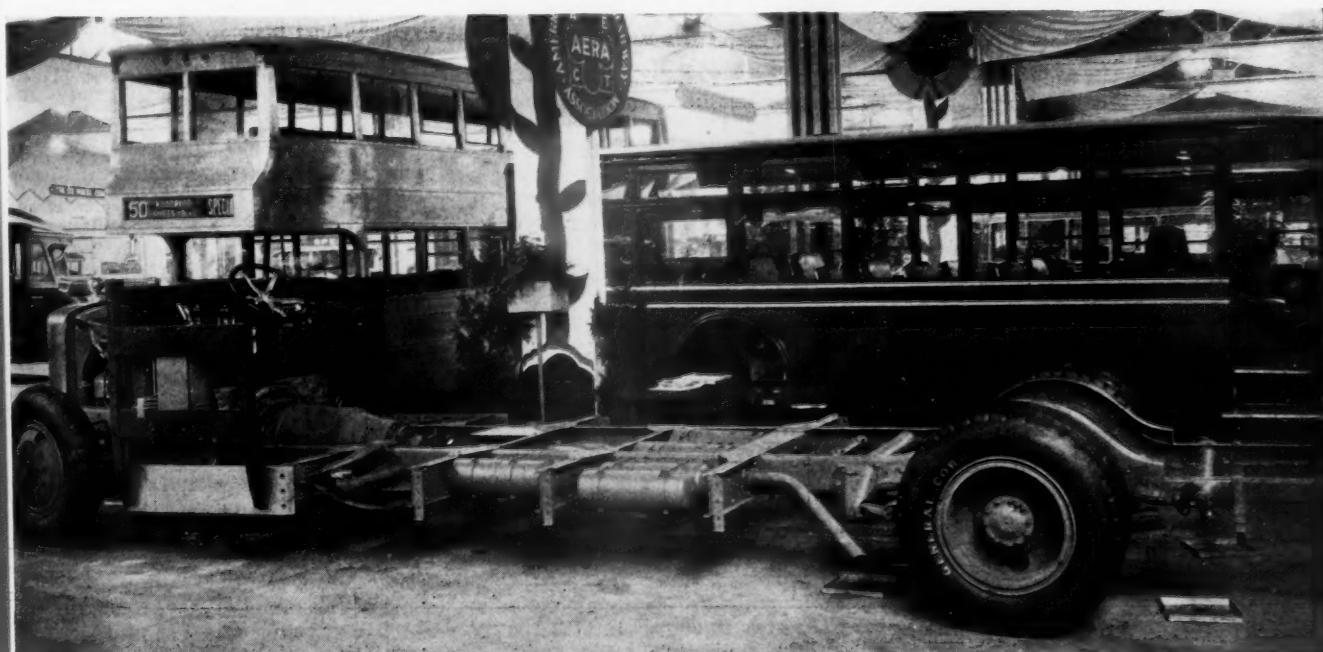
The Differential Steel Car Co., Findlay, Ohio, introduced its new three-way dumping body. This body is arranged to dump at either side or at the rear.

The body itself is constructed entirely of steel. The floor plate is flanged and the sides form deep and rigid girders. The body is electric welded throughout. The body is raised and dumped in any of the three positions with a minimum of time and effort, one lever and three notches hinges the body and two movements of the screw hoist, up and down, performs the duty.

The hoist mechanism consists of a telescoping screw driven from a power take-off. A ball and socket joint permits the screw to tilt in any direction from the perpendicular.

Aluminum Plymetl

In step with the trend for reducing body weight, the Haskelite Corp., developed a new material for reducing weight of side panels. This material is known as aluminum Plymetl. The new material is $\frac{1}{2}$ in. thick, weighs about $1\frac{1}{2}$ lb. per sq. ft., while the ordinary Plymetl, with a steel coat, weighs 2 lb. Aluminum Plymetl consists of three ply Haskelite ply wood, to which is cemented 26 gage sheet alloy aluminum.



The American Car & Foundry Co., featured its new gas-electric bus chassis

Pontiac Enters the Commercial Field With a Light Six

GENERAL MOTORS entry into the light six-cylinder commercial field with the new Pontiac Six delivery car listing at \$770, marks the introduction of the lowest priced six-cylinder commercial car on the market. Among the special features of this new unit are the driver compartment which resembles the front interior of a sedan, integral body construction, Duco finish and pleasing passenger car lines.

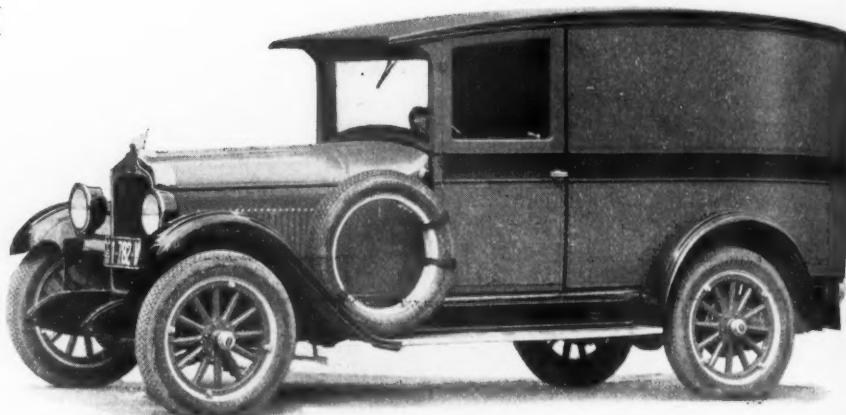
Manufactured by the Oakland Motor Car Co. and distributed through their dealer organization, shipments are being made now to the larger Oakland-Pontiac dealers in various parts of the country. The delivery car chassis is the regular Pontiac Six unit introduced nine months ago except for thicker leaf rear springs and heavy-duty commercial balloon tires of the regular nominal size, namely 29 by 4.75 in. The rated pay load is 1000 lb. with the total body and chassis weight 2470 lb.

With the view that drivers operate a commercial vehicle with greater care, higher scheduled speed and lower operating maintenance costs if proper attention is paid to the driver's comfort, the front compartment of the new delivery car is almost identical to that of the Pontiac two-door sedan.

The panel body formed integral with the driver's compartment is of the fully enclosed type with two loading doors at the rear. Construction is of the composite type employing one-piece side panels formed of wood and metal veneer cemented together, the metal being on the outside. Due to the use of steel braces, mortised joints and the special side panels the body is unusually soundproof and free from vibration.



Many parts used in the driver's compartment of the delivery car are the same as those utilized in the Pontiac two-door sedan



The Pontiac delivery car listing at \$770, is the lowest priced six-cylinder model of its type on the market. It has a rated pay-load of 1,000 lb. Except for heavier springs and heavier tires, the chassis is identical to that used for the Pontiac cars

The roof of slatted construction curving down over the windshield to form a sun visor, is covered with DuPont rubberized material. Drip moulding extends entirely around the roof while steel strips running lengthwise protect the hardwood flooring.

Interior dimensions of the load compartment are, length 69 in., height 46 in. and width 43 in. With normal load the height of the body floor is 25 1/2 in. from the ground while the capacity of the interior is 77 cu. ft.

Except for being upholstered in Fabrikoid, the two folding seats are identical to those utilized in the Pontiac two-door sedan. The windshield, a Fisher "VV" one-piece unit mounting an automatic cleaner, is employed also, while the doors with conventional high speed window regulators, catches and hardware are similar to those of the sedan.

The engine mounted in the frame at three points is of Pontiac make and of the conventional "L" head type with the water circulation by pump. Having moderate speed characteristics, the bore and stroke dimensions are 3 1/4 by 3 3/4 in. which provides a piston displacement of 186.5 cu. in. and a N.A.C.C. rated hp. at 25.3. The cylinder block is cast integral with the cylinders while the detachable cylinder head is formed in two pieces for ease of maintenance.

Lubrication is of the full pressure type by a gear pump located in the crankcase and driven by the same vertical shaft which operates the ignition distributor.

Fuel is delivered to the Carter 1 in. carburetor by a Stewart vacuum tank on the dash which in turn draws from the 12 gal. tank at the rear. All three electrical units are of Remy manufacture, the starter engaging with the flywheel by the Bendix drive.

The ignition distributor is mounted on top of the cylinder block. Current

is supplied by six-volt 80 amp. hrs. battery.

Drive to the rear axle is through a single dry disk clutch of 9 in. diameter and a three speed conventional transmission formed in unit with the engine. Both the pinion and main shaft are carried on New Departure ball bearings with the secondary shaft supported on bronze bushings. The rear axle embodies a taper tubular torque tube while a single universal is employed at the rear end of the propeller shaft. Of General Motors manufacture the axle is of the semi-floating type with a one-piece banjo housing. Drive is spiral bevel type providing a standard ratio of 4.18 to 1.

The front axle is of the usual "I" beam type with the springs mounted above the axle and employing also New Departure wheel bearings. Artillery wheels are standard equipment. Service brake operates externally on 11 by 2 in. drums on the rear wheels with the hand brake effective internally on the same drums. Steering gear is of the semi-reversible type mounting a 16 in. steering wheel. Springs are semi-elliptics all round, those on the front being 36 by 1 1/4 in. while those on the rear are 54 by 1 1/4 in., the latter are formed of chrome vanadium steel.

The wheelbase is standard at 110 in. and the turning radius 19 ft. 4 in.

Silent Hoist Changes Name and Headquarters

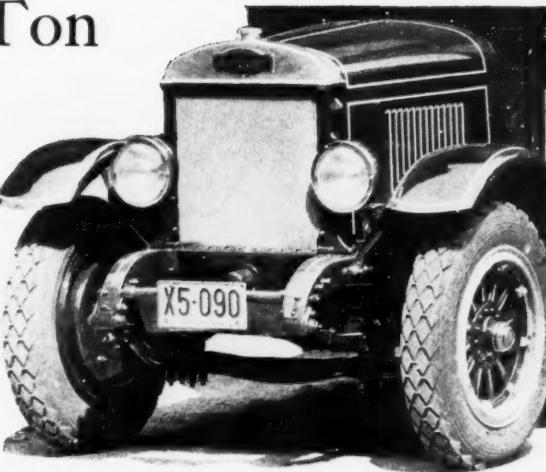
The Silent Hoist Winch & Crane Company recently moved to new headquarters, 762-772 Henry Street, Brooklyn. The new building is considerably larger than the former. The name of the company, which was Silent Hoist Company, was changed at the same time. The object being to more clearly convey the nature of its products.

Autocar Announces 1½-Ton Delivery Truck

REERENCE was made in our last issue to the fact that the Autocar Company, of Ardmore, Pa., was developing a new delivery truck of 1½-ton capacity. Complete details of this new model Autocar, which are now available, indicate that it is the result of a carefully worked out plan of engineering and combines beauty, speed and stamina in an unusual degree.

Work on this new model has been under way at the Autocar plant for a long time. The Engineering Department not only secured the advice and comment of the Autocar sales organization as to what was desirable to meet modern market demands, but also the engineers worked in close cooperation with the service managers of the important Autocar Branches in order to incorporate in this new delivery truck

of their Delivery Truck cannot be fully revealed at this time because the public is not yet aware that speed and complete control can be as effectively combined in a commercial vehicle as in an automobile. In this connection, it is going to be important for the Autocar Company to emphasize in its advertising and verbal selling that their Delivery Truck is equipped with four-wheel brakes. The extra-safety factor which four-wheel brakes have developed in the automobile field has won general acceptance and support on the part of the public. The introduction of four-wheel brakes to the com-



Close-up of front

Note mounting of the electric head lamps.

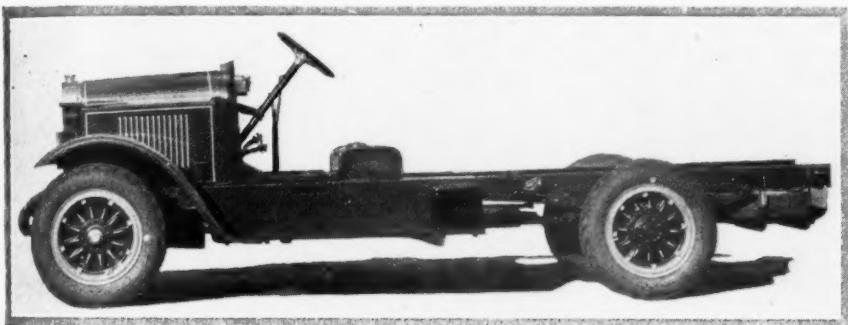
ing Department was instructed to develop this model, it was emphatically stated by the Autocar factory officials that no effort should be spared to produce the best 1½-ton delivery vehicle that could be built, and that it was not to be built to a price. This model incorporates some well-known makes of specialized units, in addition to those units built exclusively by The Autocar Company.

The engine is of Autocar design of 4-cylinder type, 4-inch bore and 5½ inch stroke. The pistons and connecting rods are of Lynite, while the crankshaft is mounted on annular ball bearings. Carburetor is a Stromberg, with automatic float feed. The radiator is of cellular type.

The axles front and rear are of Timken design. The rear axle is a spiral bevel, full floating Timken, having a 5¾ to 1 reduction. All four wheels are fitted with internal expanding brakes of Bendix design. The hand lever operates the rear wheel brakes.

The ignition starting and lighting systems are by Leece-Neville. The elec-

(Continued on page 20)



Side view of the type A Autocar chassis

those elements of design and construction which would be most helpful in practical operation and economical maintenance over a long period of years.

This Model "A" Autocar Delivery Truck has been put through a long and severe series of road tests, running always with a full 1½-ton load, under every conceivable kind of traffic and road condition. The Autocar engineers have subjected it to every kind of abuse that it might be likely to receive from the hands of an irresponsible driver. The detailed records of these tests, assembled in the Autocar engineering department, reveal figures of speed and endurance which would seem exaggerated in print. For example, a nationally known automobile recently advertised that one of their stock models had made a round trip from Philadelphia to Pittsburgh in 23 hours and nine minutes. Records in the Autocar engineering department indicate that their Model "A" Delivery Truck, running with a full 1½-ton load, made the same round trip in 20 hours and 43 minutes, leaving the Autocar Factory at 12.06 A. M. and reaching the Autocar Factory again from Pittsburgh at 8.49 P. M.

Members of the Autocar organization say that the actual speed possibilities

mercial car field by The Autocar Company is expected to win immediate recognition as a desirable step toward greater safety and control.

This Model "A" Autocar Delivery Truck is, therefore, the result of a carefully executed plan. When the Engineer-



The new Autocar type A, 1½ ton delivery

This illustration shows the clean cut design and attractive appearance of this new model.

Details of the New Mack Six-cylinder Bus

IN these columns last month we briefly described the new Mack six-cylinder bus chassis which was shown at the A. E. R. A. show. Details of this chassis are now available and indicate that this new chassis is being offered in parlor car and city type models, both seating 29 passengers, and the latter may be had with gas-electric drive.

The wheelbase is 232 in. with an overall length of 333 in. for the city type and 341 for the parlor car. At the driver's seat, the frame height is 25 in. Chassis weight complete is 8950 lbs.

Power is supplied by a six-cylinder, L-head engine with $4\frac{1}{4}$ in. bore and 5 in. stroke developing 97 hp. at 2200 r.p.m. The cylinders are cast in block but the heads are in pairs. Four main bearings, having a total length of $10\frac{1}{2}$ in. and a diameter of $3\frac{1}{2}$ in., support the crankshaft which has case-hardened journals. Tubular steel connecting rods are employed while the pistons are aluminum alloys with split skirts and inserts of a material having a low expansion to give constant clearance. Valves are actuated through roller tappets from the four bearing camshaft which is driven by case-hardened, helical timing gears. Only three gears are involved in the front end drive, the third being a bronze gear set transversely to the driving shaft whose opposite ends connect the water pump and Robert Bosch magneto. Force feed and splash lubrication is employed and an oil filter is furnished. The carburetor is a $1\frac{3}{4}$ in. Stromberg to which fuel is fed by an Autopulse pump from the 50-gal. tank mounted on the left side of the frame and shock insulated. Electrical equipment includes generator and starter of the North East make, the former being of 600-watt capacity, and 12-volt, 120 amp. hr. Exide battery. At the rear the engine is supported in rubber insulators by a drop-forged

steel beam through bolted to the rear main bearing thus relieving the aluminum crankcase of twisting strains. Tests are said to show a gasoline mileage of seven and an oil consumption of 320 miles to the gallon.

Drive to the single plate clutch and amidships transmission is through a short shaft having a flexible coupling embodying rubber members to provide cushioning. Ball bearings are used throughout the four-speed transmission. Power is carried to the double reduction rear axle through a two-piece shaft with four universals.

The B. K. vacuum booster is used to

actuate the foot brakes which operate externally on 18×5 in. drums on the rear wheels. The hand lever controls an external brake supported from a frame cross member and located between the two pieces of the propeller shaft. The 11×6 in. drum is balanced and runs on ball bearings.

Front springs are $46 \times 3\frac{1}{2}$; rear, $70 \times 3\frac{1}{2}$ in. The steering gear is a worm and wheel type provides a reduction of 20 to 1. Its column is secured to the cowl by a rubber insulated bracket while the driver is further protected from vibration by the use of a 20 in. steering wheel with flexible rim of vulcanized rubber fabric. Spark, throttle and horn controls are mounted above the steering wheel. Fenders are full-crown and the wheels are Budd-Michelin, ten stud disk type. Tires are 34×7 in. pneumatics with duals on the rear.

Durant Announces New One-Ton Truck

PRODUCTION has been started on the new six-cylinder, one-ton model called the "Compound Fleettruck," recently announced by the Durant Motor Co. of N. J. The job is priced at \$975 for the chassis and is featured by an entirely new design of four-speed transmission incorporating internal gearing.

No details of the new transmission are available at this time. Its advantages are that greater power at low speeds and higher speeds in fourth gear with less engine speed. The shift from third to fourth or vice-versa can be made at any car speed with the utmost ease, and it is claimed that there is practically no possibility of missing the shift, and the change is noiseless.

The transmission has a standard shift, fourth speed being obtained by pressing down the shift lever. Tests have shown that the use of the fourth speed saves more than 20 per cent in gasoline.

The "Fleettruck" chassis, which is powered with the same engine used in

the Star Six passenger car, will take any standard one-ton truck body. Fuel is carried in an 11 gal. tank under the driver's seat and is fed to the Tillotson carburetor by vacuum. The truck is mounted on 30×5 in. high pressure cords and its wheelbase is 128 in. Semi-elliptic springs are used throughout.

The rear axle is semi-floating, banjo type with spiral bevel gears providing a reduction of 5.1 to 1. Service and emergency brakes act externally and internally respectively on $14\frac{1}{2}$ in. drums on the rear wheels, the width in each case being $2\frac{1}{2}$ in. The chassis weight is 2350 lb. with a body allowance of 950 lb.

Autocar Announces 1 $\frac{1}{2}$ -Ton Delivery Truck

(Continued from page 19)

tric equipment includes headlights, tail light and horn. Attention is called to the mounting of the headlights. These are set in the radiator shell.

The transmission is a 3 speed Brown-Lipe connected to the rear axle through a three joint shaft, Spicer equipped.

The frame is $5\frac{3}{4}$ inches deep, $3/16$ in. thick pressed steel channel, alloy steel.

Springs are semi-elliptic, front and rear, 40 in. front, 54 rear.

Gasoline capacity is 17 gallon tank under driver's seat. Tires are 32 by 6 in. pneumatic. In the 136-inch wheelbase this Delivery Truck will take the same bodies as many other delivery cars and will take the standard production of commercial body builders. In this wheelbase it has an over-all length of 209 in.; length of frame back of seat 108 in.; length back of seat to center of rear axle $56\frac{5}{8}$ in. The spring shackles, etc., are lubricated by the Zerk system.



The "Compound Fleettruck"—a six-cylinder job

Snap-On Wrenches Promote Better All-Round Efficiency in Shops

Mechanics in GMC factory branch service stations have been supplied with Snap-On Mechanikits. Each outfit consists of a set of Snap-on socket wrenches, handles and a steel tool box. The assortment of sockets and handles was carefully chosen to provide a socket wrench for each bolt, nut or cap screw on the various models of GMC trucks. Only those sizes needed for GMC trucks are included and every one required is provided.

Space is available in the Mechanikits for the mechanic's own tools. The kits and socket wrenches are issued to the mechanic on memo and each mechanic is responsible for the contents of the set. In case he leaves the employ of the GMC branch the tool outfit is carefully checked before being taken into the stock room for re-issue.

Better all-round shop efficiency where each mechanic has a full set of socket wrenches adapted to the units being serviced was one of the factors which led to the adoption of the Mechanikit for use in GMC branches.

Sales have been made in many cases according to the Motor Tool Specialty Co., by making a time study in a shop and showing the proprietor the amount of time lost when one mechanic borrows a wrench from another. The mechanic who has a wrench for the particular operation in his kit loses time due to the interruption by the mechanic who asks for the use of a wrench "for a minute." And the borrowing mechanic loses time while he asks for the wrench and waits until the lending mechanic takes it from his tool kit or finishes using it.

Time sales of wrench kits, financed by shop owners, have been worked out in many instances to insure that all mechanics had uniform wrench equipment. Where it is found that most mechanics in a shop have wrench sets and the few without are unable or unwilling to pay out the cost of a wrench set in one week arrangements are made with the owners to buy the sets and deduct a weekly payment from the mechanic's wages.

As a further step toward uniformity, selection of a set of wrenches adapted to the work in any given shop is made after a study of requirements. These are listed and a mechanic who wishes to buy a set of wrenches need not concern himself with the make-up of the set.

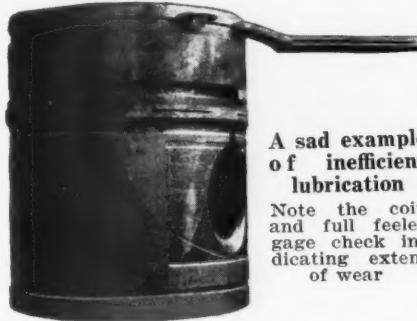
Close contact with all shops and service stations is maintained by Motor Specialty Co. factory branches. Visits are scheduled so that outlying districts are visited approximately every six weeks. Larger city shops are visited every few days.

Special wrench combinations for difficult operations are worked out whenever desired. When new models of trucks or buses are put on the market mechanics soon find out whether any special tools are needed to service them. In case of difficulty various combinations are tried or special wrenches made for the operation. Many wrenches now included in the Snap-On assortments were originally made as "specials" for difficult jobs.

Consider Operating Conditions When Selecting Oil

Operating conditions must be taken into account when selecting engine oil. This fact was forcibly brought to the attention of a truck owner when his engine "went bad" after less than three months' service.

Top rings worn so much that a five cent piece could be inserted between



A sad example of inefficient lubrication

Note the coin and full feeler gage check indicating extent of wear

ring and groove and pistons badly worn were revealed when the engine was torn down.

Lack of lubrication was plainly manifested, but the owner insisted that the engine always had plenty of oil. Further questioning brought out the fact that he had been using a special extra heavy oil.

The truck was a heavy-duty one with dump body. It was used for carting dirt and long waits under a steam shovel occupied a large part of every working day.

Long periods of idling and extra heavy oil did not make a good combination. The oil, adapted for use in air cooled engines or tractors, did not atomize under the operating conditions and pistons and cylinder walls suffered from lack of lubrication.

The salesman who sold the oil to the owner pointed out the need for heavy oil for heavy duty engines but overlooked the fact that operating conditions must also be taken into account.

The owner of the truck was displeased when he was called upon to pay for the work although the guarantee period had not elapsed, but the factory branch service manager pointed out that use of improper grade of oil was the fault of the owner and not the manufacturer.

Lepel Spark Converter

This device is designed to modify the character of the spark of battery and magneto systems, especially at high engine speeds. It is marketed by the Lepel Ignition Corporation, 117 W. 63rd St., New York.

The device consists of a moulded body of Bakelite into which are inserted a number of aluminum disks or buttons separated a distance of about .001 in. by mica rings or washers. A wood screw serves as a connector to the ignition cable and is moulded into the body at one end, while a snap clip suitable for attachment of the converter to the spark plug is fastened to the other end. The spark in passing to the spark plug is compelled to jump a series of exceedingly short gaps, whereby its character is influenced with a resultant reaction on the ignition coils.

The effect of the converter is being demonstrated by means of a revolving spark gap as used in testing ignition apparatus. The high tension current impulses are conducted to the terminals of this revolving gap by means of one sliding insulated and one grounded lead, the spark appearing on the disk of the device as an arc-shaped streak intensely bright at one end, and tapering down in brightness toward the other end known as the "tail." This is the ordinary spark as furnished by the conventional battery or magneto system.

When a Lepel converter is inserted in the circuit the demonstration shows that the spark assumes different characteristics. The duration of the discharge is materially decreased, by at least one-half with battery systems and with a magneto to about one-sixth and less under compression. At the same time the intensity is increased and is substantially uniform during the duration of the spark, instead of "trailing off" with the usual tail. A milliammeter placed in the secondary coil circuit shows an approximate doubling of the current flow with the Lepel device in the circuit, and an ammeter in the primary circuit of the battery system shows that this is accomplished with no increase in primary current.

Sectional view of Lepel converter



*for Economical Transportation***CHEVROLET**

**“—never Fails to Pull Through the
Heaviest of Deep Sand”**

Each day brings to light some new record of the remarkable economy of Chevrolet truck units—some new measure of their amazing endurance and reliability in every field of activity!

The most recent evidence of the reasons underlying Chevrolet's ever-increasing popularity in the oil field is supplied in a letter from Mr. R. O. Brittan, Sinclair Refining Co., Live Oak, Fla. He says:

“Our Chevrolet 1-ton truck is equipped with a three compartment tank of 352-gallon capacity and handles peak loads entirely to our satisfaction. The truck has run 3400 miles over rough, sand clay roads and never fails to pull through the heaviest of deep sand, the average 25 miles to the gallon of gas and 500 miles per quart of oil. ‘Economical Transportation’ seems to be a very fitting slogan for this truck!”

If you're in the market for new or additional delivery

equipment you can safely let the experience of the Sinclair Refining Co. guide you in your purchase—because their success with Chevrolet trucks is typical of the satisfaction enjoyed by Chevrolet owners everywhere!

Providing such essential truck-type advantages as rigidly braced channel steel frame; extra-leaved rear springs set parallel to the load; oversize brakes; extra strong rear axle; reliable semi-reversible steering control; positive three-speed transmission; powerful valve-in-head motor; water pump and combination pump and splash system of lubrication, the Chevrolet ton or $\frac{1}{2}$ -ton truck can't fail to give you uninterrupted delivery service at low cost. See your nearest Chevrolet dealer—get all the facts and figures—ask for a demonstration! Then you will understand why refining companies all over America are standardizing on Chevrolet!

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors

½-Ton Truck (Chassis Only) \$375

Prices F. O. B. Flint, Michigan

1-Ton Truck (Chassis Only) \$495

World's Lowest Priced Gear-shift Trucks



EDITORIALS



Needs Watching

NOW that the hearings of the Interstate Commerce Commission on the subject of motor truck and bus regulation are nearly completed, the industry is speculating upon what kind of regulation will be asked for at the next session of Congress. Although much of the testimony gathered indicates that truck regulation is not sought as much as bus regulation, there is no use taking it for granted that truck regulation is going to be pigeon-holed. As some railroads have expressed it, while Federal regulation of motor truck common carriers may not be favored at the present time it will have to come eventually.

In most of the testimony presented, the economic need of the motor trucking industry was stressed, that it was a young industry and that Federal control would handicap its normal development for many years. But lest we forget the *motor bus industry is still younger* than the trucking business.

Figures presented during the hearings show that the railroads are today hauling more freight and showing greater profits in that department than at any time since the war. The evidence presented at practically all of the hearings expressed the futility of Federal regulation of the motor trucking business. On the other hand regulation of the motor bus was more or less agreed upon. Does that not seem to indicate that the interests which are agitating for Federal control of bus lines are having the whole proposition work out practically as they want it?

Once motor buses are placed under Federal regulation how long will it be before motor trucks will be under the same control? Undoubtedly there will be a bus bill drafted for the next session of Congress, but does the bus industry need Federal regulation? How is it that the interests which want bus control are more or less agreed to forget the Federal regulation of motor trucks at present? It looks as if half a cake is better than none.

Certainly the truck and bus interests would do well to carefully watch the developments of this situation between now and next session of Congress. There may be some surprises forthcoming.

Safety First

STATISTICS available show that the most serious accidents to buses occur on intercity routes. That this should be so is not to be wondered at for it is on the main highways that the reckless speed merchant and drunken drivers are in a position to do the most damage.

In the cities speeds are lower and the traffic controlled, but the open roads, regardless of turns and crossings, fires the ambitions of the motor maniacs and morons.

Most of these bus accidents are ditchings, some serious and some otherwise, but many of them inevitable as a result of fool driving by parties of the third part. In these cases all that the bus operator can do is to insure that his vehicles are mechanically sound and that the drivers are in good mental and physical condition at all times.

A prominent middle-states operator keeps his men fit and free from fatigue on long runs by making them stop and get out of the bus every 15 miles to punch a clock. This also serves as a check and prevents them speeding to make up schedule time, because any cutting of time between clocking points means dismissal.

How the seriousness of an accident may be affected by the detail of chassis construction is exemplified by the experience of another operator. This man had one of his 23 seaters overturn and kill 3 when the forward end of a front spring broke. The manufacturer of that chassis has now altered the spring anchorage design so that in the event of a front spring breaking the axle cannot move backward more than an inch or so.

Obviously, bus manufacturers are not responsible for accidents but anything they can do to insure safety by correcting faulty design or increasing the factor of safety in certain units should prove of greater interest to the bus operator than adding new models or making improvements which fundamentally mean little in the life of the bus chassis.

Future Issues of C. C. J.

PRELIMINARY details on the *American Road Builder's Show* will be featured in the December issue and a *Commercial Car and Equipment Review* of the *National Show* (New York) in the January issue.

Timken Flat Rate Prices on Axle Units

The prices given in this table cover all labor and material costs for repairing a unit under a given classification by the Timken-Detroit Axle Company at its factory. The prices are list f.o.b. factory and subject to five per cent cash discount. Twelve classes of overhaul on motor coach and truck axles are given.

Worm Drive—Rear Axles— Housings—Full Floating Type

CLASS No. 21	Axle Series	List Price
Install new housing; rerivet brake spider; furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; inspect and paint.	6500	\$70.00
	6600	76.00
	6700	113.00

CLASS No. 22	Axle Series	List Price
Install new housing tubes; install new brake spiders (rivet if necessary); furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; furnish all new gaskets; install new carrier to housing cap screws and lock washer (assemble in place); retap carrier to housing cap screw holes; inspect and paint.	6500	118.00
	6600	124.00
	6700	150.00

CLASS No. 23	Axle Series	List Price
Install new housing; install new housing tubes; rivet old brake spider to new housing, or furnish new parts if necessary; install new brake spiders (rivet if necessary); furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; furnish all new gaskets; install new carrier to housing cap screws and lock washers (assemble in place); retap carrier to housing cap screw holes; inspect and paint.	6500	200.00
	6600	240.00
	6700	275.00

CLASS No. 24	Axle Series	List Price
Install new brake cams; install new brake shoe springs; reline or replace old brake shoes; install new housing; install new housing tubes; rerivet old brake spiders to new housing, or furnish new parts if necessary; furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; furnish all new gaskets; install new carrier to housing cap screws and lock washers (assemble in place); retap carrier to housing cap screw holes; inspect and paint.	6500	300.00
	6600	336.00
	6700	375.00

Worm Drive—Rear Axles— Carrier Assemblies

CLASS No. 11	Axle Series	List Price
Rerivet old worm wheel to differential; replace any or all bearing cones and cups; repack or replace any worn oil seal parts; furnish any necessary new gaskets; make all necessary adjustments; test, inspect and paint.	6200	\$18.50
	6300	21.60
	6400	25.00
	6500	30.50
	6600	34.50
	6700	40.50

CLASS No. 12	Axle Series	List Price
Rerivet worm wheel to differential, if necessary; replace any or all bearing cones and cups; repack or replace any worn oil seal parts; furnish any necessary new gaskets; make all necessary adjustments; install new worm wheel, if necessary; install new worm shaft, if necessary; install all necessary differential parts, including cases, if necessary; test, inspect and paint.	6200	70.00
	6300	72.00
	6400	109.00
	6500	128.00
	6600	170.00
	6700	219.00

CLASS No. 13	Axle Series	List Price
Rerivet old worm wheel to differential, if necessary; replace any or all bearing cones and cups; repack or replace any worn oil seal parts; furnish any necessary new gaskets; make all necessary adjustments; install new worm wheel, if necessary; install new worm shaft, if necessary; install all necessary differential parts, including cases, if necessary; test, inspect and paint.	6200	124.00
	6300	128.00
	6400	146.00
	6500	192.00
	6600	223.00
	6700	284.50

CLASS No. 14	Axle Series	List Price
Rerivet old worm wheel to differential, if necessary; replace any or all bearing cones and cups; repack or replace any worn oil seal parts; furnish any necessary new gaskets; make all necessary adjustments; install new worm wheel, if necessary; install new worm shaft, if necessary; install all necessary differential parts, including cases, if necessary; install new carrier and cap assembly, if necessary; test, inspect and paint.	6200	155.00
	6300	156.00
	6400	168.25
	6500	218.00
	6600	288.40
	6700	399.00

Worm Drive—Rear Axles— Housings—Fixed Hub Type

CLASS No. 31	Axle Series	List Price
Rerivet old brake spider to housing; furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; inspect and paint.	6200	\$15.00
	6300	18.00
	6400	19.50
	6500	22.50

CLASS No. 32	Axle Series	List Price
Install new brake spiders (rerivet if necessary); furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; furnish all new gaskets; install new carrier to housing cap screws and lock washer (assemble in place); retap carrier to housing cap screw holes; inspect and paint.	6200	66.00
	6300	68.00
	6400	73.50
	6500	80.00

CLASS No. 33	Axle Series	List Price
Install new housing; rerivet old brake spider to new housing, or furnish new parts if necessary; install new brake spiders (rivet if necessary); furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; furnish all new gaskets; install new carrier to housing cap screws and lock washer (assemble in place); retap carrier to housing cap screw holes; inspect and paint.	6200	97.00
	6300	101.00
	6400	224.50
	6500	240.00

CLASS No. 34	Axle Series	List Price
Install new brake cams; install new brake shoe springs; reline or replace old brake shoes; install new housing; rerivet old brake spiders to new housing or furnish new parts if necessary; furnish new carrier and housing gasket; rebabbitt or replace brake camshaft bracket; furnish all new gaskets; install new carrier to housing cap screws and lock washers (assemble in place); retap carrier to housing cap screw holes; inspect and paint.	6200	122.00
	6300	125.00
	6400	275.00
	6500	290.00

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers.
Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Bus Use Are Designated in the Following Table by Reference Sign (\$) in Front of the Name

For Motor Bus Chassis See Pages 36 and 37

(Where prices are not given it is because we have been unable to get them from authoritative sources)

Key of abbreviations, page 38

Trade Name and Model	General	Engine	Fuel System	Clutch	Gearset	Rear Axle	Gear Ratios	Front Axle Make and Model		Steering Gear (Make)	Wheels (Make)	Hubs (Make)	Chassis Weight (lbs.)		
								Type	Final Drive						
1000 Pounds															
Chevrolet Son. Com. Ch. Star Four Com. Ch... 375,103	P 30x31½	4-3-1/2x4½	21.7 H	PS	Non	P. Own	Rem A-L	S	3.82	12.7	A	Own Sup	s.s.	1490	
470,103	P 30x3½	4-3-1/2x4½	18.2 L	PC	Non	P. Own	Rem A-L	S	4.87	16.16	A	Own	Own	1500	
1500 Pounds															
Dodge Int. Harvester Spec. Del. 670,116	P 31x5.25	4-3-1/2x4½	24.0 L	PS	Non	D. Own	N-E Rem	S	1.2	17.21	A	Own	Own	2202	
Int. Harvester Spec. Del. 670,116	P 31x4	4-3-1/2x4½	19.6 L	PC	Non	D. Own	N-E Rem	S	1.2	4.45	A	Own	Own	2000	
Stewart Buddy... 865,118	P 30x5.25	6-23x4½	18.2 L	PC	Non	D. Own	N-E Rem	S	1.2	4.8	30.0	Own	Own	2250	
White, 15. 865,118	P 30x5.25	6-23x4½	18.2 L	SP	Non	D. Own	N-E Rem	S	1.2	5.36	18.6	A	Own	Own	2500
Yellow Cab Med T3... 1285,109	P 28x4½	4-3-1/2x5½	22.5 L	PS	Non	D. B-L	30Y	S	1.2	4.90	16.3	B	Tim 1311 Day	Mar	2500
1 Ton															
Acorn... 2050,144	P 34x5	4-4-1/2x4½	28.9 L	PP	Non	G	RBo A-L	U	1.2	5.66	22.6	A	Shu 310	Tut	3600
Afterbury 26B,... 132	P 30x5	6-3-1/2x4½	23.4 L	PC	Non	G	RBo A-L	U	1.2	5.10	17.03	A	Shu 310	Sue	3200
Autocar F,... 127	S 34x4½	6-3-1/2x4½	18.1 L	SP	Non	G	RBo A-L	U	1.2	5.10	17.03	A	Own F	Del	3800
Autocar G,... 120	S 34x4½	6-3-1/2x4½	18.1 L	SP	Non	G	RBo A-L	U	1.2	5.10	17.03	A	Own F	Del	3900
Bethlehem KN... 1565,125	Own KN	4-3-1/2x4½	19.6 L	PS	Non	G	RBo A-L	U	1.2	5.10	17.03	A	Own F	Del	3800
Biederman... 138	P 30x5	6-3-1/2x4½	27.3 L	PC	Non	G	RBo A-L	U	1.2	5.5	27	A	Shu 310	Mat	3200
Casco A... 1700,130	P 34x5	6-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.85	23.4	A	Col 5000	Per	1985
Chevrolet Sup... 124	P 30x5	4-4-1/2x4½	25.6 L	PC	Non	G	RBo A-L	U	1.2	5.43	18.0	A	Own Sup	SS	3240
Chicago 10... 122	P 30x5½	6-3-1/2x4½	25.6 L	PC	Non	G	RBo A-L	U	1.2	5.66	27.16	A	Tim 1250	Mat	3240
Clydesdale 10... 140	P 34x5	6-3-1/2x4½	28.9 L	PP	Non	G	RBo A-L	U	1.2	5.66	27.16	A	Tim 1250	Mat	3450
Commerco Distributor... 130	P 30x5	6-3-1/2x4½	23.4 L	PC	Non	G	RBo A-L	U	1.2	5.66	27.16	A	Tim 1250	Mat	2900
Concord K... 1750,130	P 30x5	6-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.66	16.3	A	Col 5307	She	3025
Corbit 20... 136	P 30x5	6-3-1/2x4½	18.1 L	PP	Non	G	RBo A-L	U	1.2	5.66	16.9	A	East 750	She	3105
Corbit 21... 132	P 30x5	6-3-1/2x4½	25.3 L	PP	Non	G	RBo A-L	U	1.2	5.66	18.9	A	East 750	She	3115
Deuby 41... 128	P 34x5	6-3-1/2x4½	25.6 L	PC	Non	G	RBo A-L	U	1.2	5.8	23.2	A	Col 5000	Det	3240
Diamond 776... 130	P 30x5	6-3-1/2x4½	25.6 L	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Col 53008	Mat	3240
Doris K. 2... 2400, Opt	P 32x5	6-3-1/2x4½	28.9 L	PP	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Col 53008	Mat	3240
Duplex Q... 132	P 33x5	6-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Federal Knight... 1065,124	P 33x5½	6-3-1/2x4½	21.0 X	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Fisher Jr. Express... 136	P 30x5	4-3-1/2x4½	22.5 L	SP	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Ford T... 325,123	P 30x5	4-3-1/2x4½	21.0 X	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Garford 15... 1790,132	P 34x5	6-3-1/2x4½	21.0 X	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Gary Express... 1560,132	P 33x5	6-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
GMC K-17... 136	P 34x5	6-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Goffredson 26 B... 1750,130	P 30x5	4-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Graham Bros. BC... 865,126	P 30x5	4-3-1/2x4½	24.0 L	PS	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Graham Bros. IC... 1020,127	P 33x5	4-3-1/2x4½	22.0 L	PS	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Gramin 233 N... 133°	P 30x5	4-3-1/2x4½	22.5 L	PP	Non	G	RBo A-L	U	1.2	5.12	18.6	A	Tim 1250	Mat	3240
Gramin-Bernau 10... 129	P 30x5	4-3-1/2x4½	27.3 L	PP	Non	G	RBo A-L	U	1.2	5.33	21.3	B	Col 5300	Per	3240
Grass Premium 40... 1650,130	P 30x5	4-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.85	23.08	B	Sal D	Ind	2950
Herr Premier 40-6... 1750,130	P 30x5	4-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.1	21.2	B	Col 5300	Det	2950
Indiana 11... 129½°	P 30x5	4-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.1	24.8	A	Shu 5405	Det	3240
Keweenaw OS... 2250,131	P 30x5	4-3-1/2x4½	22.5 L	PC	Non	G	RBo A-L	U	1.2	5.1	24.5	A	Shu 5405	Det	3240
King-Zeitzer 25... 134°	P 30x5	4-3-1/2x4½	28.9 L	PP	Non	G	RBo A-L	U	1.2	5.1	24.5	A	Tim 1250	Mat	3240
Kiesel... 140	P 34x5	4-3-1/2x4½	24.1 L	SP	Non	G	RBo A-L	U	1.2	5.16	18.88	A	Tim 1432	Mat	3240
Kiesel... 1800,140°	P 33x6	4-3-1/2x4½	22.5 L	PP	Non	G	RBo A-L	U	1.2	5.65	27.31	A	Tim 1250	Mat	3240

Key of abbreviations, page 38

Trade Name and Model	General		Engine		Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model		Rims (Make)		Wheels (Make)		Steering Gear (Make)		Springs (Make)		Chassis Weight (lbs.)	
	Tire Size (inches)	Rear (inches)	Fuel System	Clutch	Type and Make	No. of Forward Speeds	Location	Type	Final Drive	Total Reduction in Low Gear	Total Reduction in Hi Gear	Front Make and Model	Rim	Front Make and Model	Rim	Front Make and Model	Rim	Front Make and Model	Rim	Front Make and Model	Rim	Chassis Weight (lbs.)
1 Ton—Cont'd																						
Larabee A3	133	P 30x5	Con S4	B-L	B-L 31	5.10	17.1	Sal	1250			She	Tut	Gem	Smi	Fir		2900				
LeMoton GP-1	161	P 34x5	Con S4	B-L	B-L 31	5.6	17.1	Sal	1250			Tut	Ros	Smi	Fir		2700					
Luedtghaus	130	P 34x4½	Con S4	B-L	B-L 31	5.0	17.1	Sal	1250			Tut	Ros	Smi	Fir		2850					
Master 11B	132	P 35x6	Wau V	D. Ful	D. Ful	5.10	17.1	Sal	1250			Tut	Ros	Smi	Fir		2925					
Memnonine	132	P 35x6	Wau V	D. Ful	D. Ful	5.6	17.1	Sal	1250			Tut	Ros	Smi	Fir		2925					
Nash 1918	1565	P 34x5	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3400					
Noble A-76	1775	P 34x5	Own 4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3400					
Ogden A2	125	P 34x5	Wau V	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3100					
O. K.	1795	P 34x5	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Parker Chariot	1750	P 35x5	Wau V	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Sandow GA	120	P 35x6	Her OX	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Schaeft	130	P 32x6	Str	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Service 25H	132	P 32x6	Wau V	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Star Fleerick	146	P 32x6	Wau V	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Stewart 16	125	P 32x6	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
United 16	125	P 32x6	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
U.S. U.	1620	P 34x5	Her OX	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Wachusett S.	132	P 32x6	Str	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Yellow Cab T-1	1450	P 32x6	Con V4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Yellow Knight T2	1095	P 30x5	Kni V	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3240					
1 ¼ Ton																						
Aene 24	130	P 30x5	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Autosar F.	97	P 34x4	Own 4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Autosar G.	120	P 34x4	Own 4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Biederman	164	P 34x5	Own 4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Clinton 20	163	P 30x5	Wau V	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Clydesdale 10A	153	P 30x5	Con J4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Defiance G2	128	P 34x5	Con J4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Defiance GL2	140	P 32x6	Con J4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Defiance R-3	1675	P 34x5	Con J4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Gramm 23N	133	P 32x6	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Gramm 263 N	133	P 32x6	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Gramm-Bernfeld 10	129	P 30x5	Con J4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Guider B-6	132	P 30x5	Con J4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Hahn B2	1650	P 30x5	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Inter'l Harvester S.	124	P 32x6	Her OX	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Int'l. Harvester S-24	130	P 32x6	Str	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Int'l. Harvester S-20	130	P 32x6	Str	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Lange 36	1650	P 32x6	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Maege 36	132	P 33x5	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Master 11	132	P 33x5	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Memnonine HT	130	P 34x5	Her OX	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Patriot 17R	129	P 32x6	Str	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Reo F.	1090	P 33x5	Own F	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Reo P.	1240	P 33x5	Own F	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Republ' 75	124	P 32x6	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Ruggles 18	134	P 30x5	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Selden Pacemaker 24	144	P 30x5	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Selden Pacemaker 26	144	P 30x5	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Sheriff 16X	1370	P 30x5	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Shoughton C.	131	P 34x5	Own F	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
United 20	130	P 30x5	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
Victor 25	1635	P 33x5	Her O	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		3250					
1 ½ Ton																						
Acme 36	136	P 32x6	Con 8R	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3600					
Acme 144	230	P 34x4	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		4400					
Armleder 30	148	P 34x5	Con S4	D. Ful	D. Ful	5.10	17.1	Col	1250			Tut	Ros	Smi	Fir		3600					
Armleder 30B	150	P 34x4	Con S4	D. Ful	D. Ful	5.6	17.1	Col	1250			Tut	Ros	Smi	Fir		4400					

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Trade Name and Model	General		Engine		Fuel System	Clutch	Gears	Rear Axle		Gear Ratios		Front Axle Make and Model	Springs Gear (Make)	Rims (Make)	Chassis Weight (lbs.)
	Tire Size	Front (inches)	Stroke	Number of Cylinders				Make and Model	Type and Make	Generator and System	No. of Forward Speeds				
Pendell B (low bed).	3000	156°	P 30x5	S 34x4	Her CT	4-4x5	25.6 L	PC Non	Str G	A-L	Ful SU12	U	B Own	Gdy	4800
Pendell B5.	3000	146°	P 32x6	S 34x4	Her OX	4-4x5	25.5 L	PC Non	Str G	Bos Rem	Ful B-L 31	B	B Own	Han	3400
Republie 22.	152	152	S 36x3 1/2	S 34x4	Bud CTU	4-3 1/2x5 1/2	25.5 L	PC Non	Str G	Bos	Ful TU5	W	25.5 A	B Det	3800
Rumley A.	2150	144	S 34x4	S 34x4	Her OX	4-3 1/2x5 1/2	25.5 L	PC Non	Str G	Eis	Ful B-L 31	W	25.5 A	B Det	4050
Sandow W-12.	150	138	P 30x5	P 30x5	Con R	6-3 1/2x5 1/2	27.3 L	PC Non	Str G	Con	Ful TU%	W	25.5 A	B Det	3895
Schacht H.	2500	144	S 34x4	S 34x4	Bud KBU-1	4-4x5	25.6 H	PC Non	Str G	Dyn	Ful GU7	W	25.5 A	B Det	2960
Service.	150	151 1/2	S 36x4	S 36x7	Wau V	4-4x5	25.6 L	PC Non	Str G	Bos	Ful B-L 36	W	25.5 A	B Det	4500
Steinlecong A.	149	149	S 34x4	S 34x8	Wau V	4-4x5	25.6 L	PC Non	Str G	Eis	Ful B-L 35	W	25.5 A	B Det	6350
Steering DW-8.	165	145	P 32x6	P 32x6	Her OX	4-4x5	25.6 L	PC Non	Str G	Eis	Ful B-L 31	W	25.5 A	B Det	4000
Stewart 17.	175	145	P 32x6	P 32x6	Lyc C	6-3 1/2x5 1/2	25.3 L	PC Non	Str G	Eis	Ful LTU	U	25.5 A	B Det	3200
Stoughton B.	140	140	S 36x3 1/2	S 36x3 1/2	Wau	4-3 1/2x5 1/2	22.5 L	SP Non	Str G	Con	Ful B-L 30	U	25.5 A	B Det	3450
Stoughton J.	140	140	P 32x6	P 32x6	Bud WU	4-3 1/2x5 1/2	21.0 H	PC Non	Str G	West	Ful GU14	U	25.5 A	B Det	4420
Traylor B.	1800	140	S 34x3 1/2	S 34x6	Wau V	4-3 1/2x5 1/2	22.5 L	PC Non	Str G	G&O	Ful GU14	U	25.5 A	B Det	2940
Union E.	150	150	P 34x7	P 30x5	Her OX	4-4x5	25.6 L	PC Non	Str G	Eis	Ful B-L 31	U	25.5 A	B Det	4200
U.S. L.	2100	148	P 32x6	P 32x6	Lyc C	6-3 1/2x5 1/2	25.3 L	PC Non	Str G	Eis	Ful LTU	U	25.5 A	B Det	4070
U.S. N.	1850	144	S 36x3 1/2	S 36x3 1/2	Her OX	4-4x5	25.6 L	PC Non	Str G	Eis	Ful SU12	U	25.5 A	B Det	4010
Victor 40.	195	135	S 34x4	S 34x4	Con J4	4-3 1/2x5 1/2	22.5 L	PC Non	Str G	Eis	Ful B-L 30	U	25.5 A	B Det	3300
Wadsworth, J.	148	148	S 36x6	S 36x6	Own B	4-4x5	22.5 L	PC Non	Str G	Eis	Ful GU14	U	25.5 A	B Det	4600
Wilcox HT.	2550	156	S 36x4	S 36x4	Wau V	4-4x5	28.9 L	SP Non	Str G	Eis	Ful GU14	U	25.5 A	B Det	3000
Winter 16.	1340	136	P 30x5	P 32x6	Northway	4-3 1/2x5 1/2	27.3 L	PC Non	Str G	Eis	Ful GU14	U	25.5 A	B Det	4300
Witt-Wil N.	2875	144	S 34x3 1/2	S 34x6	Con S4	4-4x5	28.9 L	PC Non	Str G	Eis	Ful GU14	U	25.5 A	B Det	3000
2 Ton															
Acorn A.	2500	144	S 36x4	S 34x4	Con S4	4-4x5	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4600
Autocar F.	197	120	S 34x4	S 34x4	Own H	2-4 1/2x5 1/2	18.1 L	SP Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	3800
Autocar G.	114	114	S 34x5	S 34x5	Own H	2-4 1/2x5 1/2	18.1 L	SP Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	3900
Autocar GK.	138	138	S 34x5	S 34x7	Own H	4-4x5 1/2	25.6 L	SP Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	5100
Bethelco GN.	2495	137 1/2	S 36x4	S 34x8	Bud WTU	4-3 1/2x5 1/2	22.5 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	5200
Bridgeport A.T.	148	148	S 34x4	S 34x8	Wau V	4-4x5 1/2	25.6 L	SP Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4100
Broadway SK.	140	147	S 34x4	S 34x4	Con K4	4-3 1/2x5 1/2	27.2 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4700
Broadway SK.	150	150	P 32x6	P 32x6	Wau V	4-4x5 1/2	27.3 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	5000
Buck 44.	160°	160°	S 36x4	S 36x4	Con S4	4-4x5 1/2	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	5145
Buck 46.	170°	170°	S 36x4	S 36x4	Con S4	4-4x5 1/2	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	5000
Casco C.	2700	130	S 32x6	S 32x6	Bud WTU	4-3 1/2x5 1/2	22.5 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4850
Clinton 45.	163	140	S 34x4	S 34x4	Con S4	4-4x5 1/2	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4850
Clyde D. 9.	160°	160°	S 34x4	S 34x4	Con S4	4-4x5 1/2	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Commerce S14.	146°	146°	S 36x4	S 36x4	Con S4	4-4x5 1/2	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Concord GX.	2800	150	S 32x6	S 32x6	Con S4	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Corbit 40.	148	148	S 36x4	S 36x4	Con S4	4-4x5 1/2	27.3 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Douglas.	168°	168°	S 36x4	S 36x4	Con S4	4-4x5 1/2	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Duplex A.	160°	160°	S 34x4	S 34x4	Con K4	4-4x5 1/2	27.2 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Eagle 102.	134°	140	S 34x4	S 34x4	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Federal S1.	140	140	S 34x5	S 34x5	Con S4	4-4x5 1/2	28.9 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Gottfredson 46.	146 1/2°	146 1/2°	S 36x4	S 36x4	Con S4	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Graham Bros. OC.	1445	137	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Graham Bros. OC.	1445	137	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Graham Bros. T.C.	1515	162	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Griffith E2.	140	140	S 35x5	S 35x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Dixon.	2800	136	S 34x4	S 34x7	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Douglas.	168°	168°	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Duplex A.	160°	160°	S 34x4	S 34x4	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Eagle 102.	134°	140	S 34x5	S 34x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Federal S1.	140	140	S 34x5	S 34x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Gottfredson 46.	146 1/2°	146 1/2°	S 36x4	S 36x4	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Graham Bros. OC.	1445	137	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Graham Bros. T.C.	1515	162	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Griffith E2.	140	140	S 35x5	S 35x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Dixon.	2800	136	S 34x4	S 34x7	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Douglas.	168°	168°	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Duplex A.	160°	160°	S 34x4	S 34x4	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Eagle 102.	134°	140	S 34x5	S 34x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Federal S1.	140	140	S 34x5	S 34x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Gottfredson 46.	146 1/2°	146 1/2°	S 36x4	S 36x4	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Graham Bros. OC.	1445	137	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Graham Bros. T.C.	1515	162	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Griffith E2.	140	140	S 35x5	S 35x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Dixon.	2800	136	S 34x4	S 34x7	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Douglas.	168°	168°	P 32x6	P 36x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Duplex A.	160°	160°	S 34x4	S 34x4	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865
Eagle 102.	134°	140	S 34x5	S 34x5	Bud KBU-1	4-4x5 1/2	25.6 L	PC Non	Chi	Chi	Ful SU12	S	28.0 A	Shu 350	4865

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Trade Name and Model	General		Engine		Fuel System		Clutch		Gearset		Rear Axle		Front Axle Make and Model		
	Tire Size	Front (inches)	Rear (inches)	Bore and Stroke	Number of Cylinders	Cylinder	Feed	Intake	Exhaust	Make and Model	Location	No. of Forward Speeds	Type	Total Reduction in Gear	Front Axle Make and Model
2½ Ton—Cont'd															
Denby 43	155	S 26x4	S 26x8	Hor O	4-4x5	PC	Len	Zen	G	Ful	U	D	Con	4925	
Diamond T-U4	163	S 30x4	S 30x8	Hor KA	4-4x5	PC	Gao	Apo	A-L	Cov RADA	A	9.06	39.12		
Dixon C	150	S 3000/154	S 36x4	Hor G	4-4x5	PC	Str	Gao	A	Opt	A	8.5	44.2		
Doris K5	157	S 3700/157	S 36x4	Own	4-4x5	PC	Gao	Non	A	Tim	5500	8.5	44.2		
Garford 50	150	S 3750/157	S 36x4	Con K4	4-4x5	PC	Str	Gao	A	Tim	5500	8.5	44.2		
Gary E5	148	S 326x4	S 36x4	Bad EBU-I	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
G.M.C. K-52A	146	S 326x4	S 36x10	Bad EBU-I	4-4x5	PC	K.P.	Own	A	Tim	5500	8.5	44.2		
G.M.C. K-52B	158	S 326x4	S 36x10	Own	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
G.M.C. K-52C	193	S 36x4	S 36x10	Own	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Giotfredson 61	150	S 36x4	S 36x10	Bad KBU-I	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Giotfredson 36	150	S 36x4	S 36x10	Bad BUS	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Grimm 64 N	150	S 36x4	S 36x10	Bad BUS	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Grimm 564 N	150	S 36x4	S 36x10	Bad EBU-I	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Grimm-Bernstein 125	144	S 326x4	S 36x10	Con S4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Gross Premier 80	150	S 3500/150	S 36x4	Con S4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Grass Premier 55	150	S 3600/150	S 3220	Wau CU	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Grass Premier 80-6	167	S 4150/167	S 3220	Lye C	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Gruß Prentier 55-6	150	S 2750/160	S 3220	Wau	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Guilder E6	160	S 2750/160	S 3220	Wau	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Hahn K Spec	144	S 2750/160	S 3220	Wau	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Harvey WFC	150	S 2750/160	S 3220	Wau	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Hug H4K	121	S 2750/160	S 3220	Wau	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Kearns CL	158	S 2750/160	S 3220	Wau	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Kearns Springfield K-525	150	S 2750/160	S 3220	Wau	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
King Zeiter 45	150	S 36x4	S 36x8	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Kissel	168	S 36x4	S 36x8	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Kleiber	163	S 3650/149%	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Lauge E	173	S 36x4	S 34x7	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Larabee XH	173	S 36x4	S 34x7	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Larabee K5	176	S 36x4	S 34x7	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
LeMoore GPS	150	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Mack AB	145	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Mack A-B	150	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Master 41	154	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Menorine D	144	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Moreland EXX4	162	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Moreland EXX6	176	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
National 23	178	P 3220/178	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Necto Bi-51	160	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Noble D-51	162	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Ogden E2	160	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
O. K. Oil Spec	164	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Patriot 50	150	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Old Reliable	145	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Oehkoch BO	146	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Oshkosh BBO	162	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Oshkosh M.M.	162	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Parker Heavy Duty	150	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Patriot 60	150	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Ruggles 42	150	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Sandow	162	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Sanford W6 20	155	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Sanford W6 25A	155	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Sanford W-425B	155	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Schecht LO	150	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Selden 14	157	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Standard 2½-3½ K.	144	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Standard 2½-3½ K.	147	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Standard 2½-3½ K.	147	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Steinkoenig B	156	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		
Steinkoenig C	156	S 36x4	S 36x4	Con K4	4-4x5	PC	Own	Zen	A	Tim	5500	8.5	44.2		

Key of abbreviations, page 38

Trade Name and Model	General		Engine		Electrical System		Clutch		Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model		Brakes, Location		Low Total Reduction in High Total Reduction in Type		Steering Gear (Make)		Wheels (Make)		Chassis Weight (lbs.)	
	Tire Size	Prest (inches)	Front (inches)	Revs per min.	Bore and Stroke	Number of Cylinders	Rated H.P.	Crash Protection System	Model	Fuel System	Generator and Starter (Make)	Type and Make	Location	No. of Forward Speeds	Universal (Make)	Final Drive	Front Axle Make and Model	Brakes, Location in Low Total Reduction in High Total Reduction in Type	Steering Gear (Make)	Wheels (Make)	Chassis Weight (lbs.)					
3 1/2 Ton—Cont'd																										
Patriot 55	156	S 36x5	S 36x10	Hin 200	4-4½x5½	32.4 L	FP	Non	Own	Zen	Bos	B-L 51	A	4	The	Tim 6566	W F	9.25	49.5 A	Shu	Mar	Ros	Bim	5500		
Patriot 65X	156	S 36x5	S 36x10	Hin 200	4-4½x5½	32.4 L	FP	Non	Own	Zen	Bos	B-L 55	A	4	The	Tim 6566	W F	9.25	48.1 A	Shu	Mar	Ros	Bet	5600		
Pierce-Arrow XB	3750	150	S 36x5	DS36x5	Own XB	4-4½x5½	32.4 L	PC	Non	Own	Sta	B-L 55	A	4	The	Tim 6566	W F	9.25	48.1 A	Shu	Shu	Own	XB	6280		
Rehberger B-1	192	S 36x6	DS36x6	Bud YBU	4-4½x5½	32.4 L	PC	K-P	Own	Bus	Bos	B-L 51	A	4	Spi	Tim 6566	W F	6.75	36.1 A	Shu	Shu	5550B	Del	6510		
Rehberger B-	192	S 36x6	DS36x6	Bud YBU	4-4½x5½	32.4 L	PC	K-P	Own	Bus	Bos	B-L 51	A	4	Spi	Tim 6566	W F	6.75	45.5 B	Shu	Shu	5550	Del	6460		
Republic 26	165*	S 36x5	S 36x10	Con K4	4-4½x5½	32.4 L	FP	Pha	Own	Str	Bos	B-L 51	A	4	Spi	Tim 6566	W F	8.40	40.3 B	Eat	Jac	Van	Fir	5400		
Republic 28W	165*	S 36x5	S 36x10	Wau FU	4-4½x5½	32.4 L	FP	Wau	Own	Str	Bos	B-L 51	A	4	Spi	Tim 6566	W F	8.40	40.3 B	Eat	Jac	Van	Fir	5400		
Ruggers 45	148	S 36x5	S 36x10	Her OX	4-4½x5½	32.4 L	PC	Non	Per	Zen	G	Bos	B-L 35	A	4	Spi	Tim 6566	W F	7.85	42.0 A	Shu	Shu	5550	Det	5200	
Sedan L.	4000	160	S 36x6	P 32x6	Wis RCU	4-4½x5½	32.4 L	PC	Non	Own	Str	G	Bos	B-L 35	A	4	Spi	Tim 6566	W F	10.4	49.4 A	She	Own	Van	Day	7470
Sedan Roadmaster	154°	S 36x4	S 36x8	Con 6B	4-4½x5½	33.7 L	FP	Non	Own	Str	G	Bos	B-L 35	A	4	Spi	Tim 6566	W F	10.4	49.4 A	Opt	Tim	1452	Det	7470	
Selden Unit 53	156	S 36x5	S 36x8	Con L4	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Spi	Tim 6566	W F	8.75	46.8 A	She	Tim	1544B	Det	6220	
Stoughton F.	156	S 36x5	S 36x8	Bud ETU	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 50	A	4	Spi	Tim 6566	W F	8.75	46.8 A	She	Shu	5550	Det	5900	
Traveller D.	3400	150	S 36x5	S 36x8	Bud ETU	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 50	A	4	M-E	Tim 6566	W F	8.75	46.8 A	She	Shu	5550	Det	5850
Winter 54	3860	152	S 36x5	S 36x8	Wau FU	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	M-E	Tim 6566	W F	8.00	44.0 A	She	Tim	1544B	Det	5700
Winter 54	4500	152	S 36x5	S 36x8	Wau FU	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	M-E	Tim 6566	W F	8.00	44.0 A	She	Tim	1544B	Det	5700
Witt Will SS	3400	168°	S 36x10	Con K4	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Spi	Tim 6570D	W F	9.25	40.0 A	She	Tim	6570D	Det	5700	
3 1/2 Ton																										
Acme 74	173	S 36x5	S 36x10	Con L4	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Acme 76	179½	S 36x5	S 36x10	Con L4	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
American La France Y.	4950	161	S 36x6	S 36x10	Con 7T	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200	
Attlebury 22D.	174°	S 36x6	S 36x10	Con L4	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Autocar 22D.	114	S 36x5	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Autocar HS	114	S 36x5	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Autocar KAS	138	S 36x5	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Autocar CKAS	162	S 36x5	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Autocar CHS	172	S 36x5	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Bethlehem M.	3795	168	S 36x5	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200	
Bethlehem CS	4425	145	S 36x6	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200	
Biedermann	180°	S 36x6	S 36x10	Own Y	4-4½x5½	32.4 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	8.5	51.85 A	Tim	1544B	Det	6200		
Chicago 35	183	S 36x5	S 36x10	Her L	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Chicago 35	183	S 36x5	S 36x10	Her L	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Chicago 35	183	S 36x5	S 36x10	Her L	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Clydesdale IX	177	S 36x5	S 36x10	Own Y	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Commerce "Relay" 30	156	S 36x5	S 36x10	Own H	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Diamond T. K2	170	S 36x5	S 36x10	Own H	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Diron A.	4070	160	S 36x5	S 36x10	Own H	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
Duplex E.	124	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Gary 125	4250	160	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
G.M.C. K72A.	4500	160	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
G.M.C. K72B.	3900	156	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
King Zetter 75.	156	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300	
Grass Premier 90-6.	4200	60	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
Lange F.	4850	68°	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
Harvey WHB	4250	60	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
Larrabee L-6	3827	124	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
LeMoon GP6.	3865	Opt.	S 36x5	S 36x8	Con B5	4-4½x5½	33.7 L	FP	Pha	Own	Str	G	Bos	B-L 51	A	4	Bio	Tim 6570	W F	9.5	52.0 A	She	Shu	5550	Det	6300
Luedinghaus	160°	S 36x5																								

Old Reliable.	156	S 40x14	Con B7	40' 0"	L	FP	Pha	Wau EU	Wau CU	32' 4"	L	FP	K.R.
Parker Hippo.	150	S 30x15	Wau VAU	4-1-2x6	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Standard 4-3-5 K.S.	165*	S 30x12	Bud YBU-I	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Service 81.	165*	S 30x12	Con L4	4-1-2x6	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Standard 3-2-5 K.S.	160*	S 30x15	Con L4	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Steering DW14.	160*	S 30x15	Con L4	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Stewart IP-X.	160*	S 30x15	Con L4	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Twin City A.W.	165	S 30x15	Con L4	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
United 70.	155	S 30x15	Con L4	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
U. S. S.	155	S 30x15	Con L4	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Victor 90.	325 160	S 30x15	Con L4	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Ward La. France 4B.	172	S 30x15	DS30x10	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
White 40.	4350 174*	S 30x15	DS30x10	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Wileor E.	3950 147	S 30x15	DS30x10	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim
Witt-Will L.	4200 156*	S 30x15	DS30x10	4-1-2x5 1/2	32' 4"	L	FP	Wau EU	Wau CU	32' 4"	L	FP	Bim

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Sanford W4-35CS.	156	S 40x14	Con B7	4-5x6	32' 4"	L	FP	Pha	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Schacht L.	4000	S 30x15	Con B7	4-3-1x6	32' 4"	L	FP	Pha	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Selden 70.	165*	S 30x15	Con B7	4-3-1x6	32' 4"	L	FP	Pha	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Service 81.	173	S 30x12	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Standard 3-2-5 K.S.	160*	S 30x15	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Steering DW14.	160*	S 30x15	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Stewart IP-X.	165*	S 30x15	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Twin City A.W.	168*	S 30x15	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
United 70.	155	S 30x15	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
U. S. S.	155	S 30x15	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Victor 90.	325 160	S 30x15	Con L4	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Ward La. France 4B.	172	S 30x15	DS30x10	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
White 40.	4350 174*	S 30x15	DS30x10	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Wileor E.	3950 147	S 30x15	DS30x10	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
Witt-Will L.	4200 156*	S 30x15	DS30x10	4-3-1x5 1/2	32' 4"	L	FP	Sim	Wau EU	Wau CU	32' 4"	L	FP	Wau EU	
4 Ton															
Acorn 70.	4250 166	S 30x15	S 40x10	Bus YBU-J	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Armedler 70.	165*	S 30x15	S 30x12	Bus YBU-J	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Brockway R14.	164	S 30x15	S 30x12	Con L4	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Brockway RT.	165*	S 30x15	S 30x12	Con L4	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Brookway RH.	175	S 30x15	S 30x10	Con B5	4-3-1x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Clinton 90.	168	S 30x15	S 30x10	Wau DU	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Corbitt A.	190	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Gottfredson 90.	178	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Derby Elder K.	162*	S 30x15	S 30x12	Con L4	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Denby 27.	170	S 30x15	S 30x12	Con L4	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Doris K.	171	S 30x15	S 30x12	Con L4	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Fageol 445.	172	S 30x15	S 30x12	Her L	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Federal 9A.	4200 157	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Garfield 90.	4250 162	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Gottfredson 90.	160*	S 30x15	S 30x15	S 40x14	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Godtredson 86.	165*	S 30x15	S 30x15	S 40x14	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Graman 840.	152*	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Graman 8680.	152*	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Graman 8860.	152*	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Master 55.	158*	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Moreland AXX4.	4450 160*	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Hahn M.	170	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Kenworth L.	4500 170	S 30x15	S 30x15	S 40x12	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Kiesel Heavy Duty.	168	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Macar 94.	171	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Maccar 96.	171	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Saddein 73.	168*	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Union H.W.	174	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Winter H.W.	174	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Witt-Will A.	4700 172*	S 30x15	S 30x15	DS30x6	4-1-2x6	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
4 1/2 Ton															
Republic 30.	170*	S 30x15	S 30x15	S 36x12	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
Republie 30W.	170*	S 30x15	S 30x15	S 36x12	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W	
5 Ton															
Amet 104.	180	S 30x15	S 30x15	S 40x14	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Amer. La. France V.	5500 Opt.	S 30x15	S 30x15	DS40x7	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Attberry 24E.	174*	S 30x15	S 30x15	S 40x14	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Autocar L.	156	S 30x15	S 30x15	S 30x12	Own M	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W
Autocar M.	120	S 30x15	S 30x15	S 30x12	Own M	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W
Biederman.	169*	S 30x15	S 30x15	S 30x12	Own M	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W
Brockway T.	174	S 30x15	S 30x15	S 40x14	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Buck 84.	170*	S 30x15	S 30x15	S 40x12	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Buck 86.	183*	S 30x15	S 30x15	S 40x12	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Buck 90.	183*	S 30x15	S 30x15	S 40x12	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Chicago 120L.	204	S 30x15	S 30x15	S 36x12	Con LA	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W
Clinton 120LM.	204	S 30x15	S 30x15	S 36x12	Con LA	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W
Clydedale 2.	176*	S 30x15	S 30x15	S 36x12	Con LA	4-1-2x5 1/2	32' 4"	L	PC	Chi	Zen	Own	Str	Tim 6666	W
Coleman 4.	144	S 30x15	S 30x15	S 40x14	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Coleman 6-OX.	144	S 30x15	S 30x15	S 40x14	Con B7	4-5x6	40' 0"	L	FP	Pie	Own	Str	Tim 6666	W	
Coleman 6-OX.	144	S 30x15	S 3												

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Trade Name and Model	General		Tire Size		Fuel System	Clutch	Gearset	Rear Axle		Front Axle and Model		Wheels (Make)	Springs (Make)	Suspension (Make)	Chassis Weight (lb.)	
	Make and Model	Price	Make and Model	Price				Make and Model	Price	Low	Total Reduction in Height					
5 Ton (Cont'd)																
Diamond T 82.....	180	\$ 36x6	DS40x6	Her G	4-4½x5½	36.1 L	FP	G&O	W P	11.66	62.38 A	Tim 1732B	Ros	Semi	9500	
Dion.....	4400	\$ 36x6	S 36x6	Bud BTU	4-4½x5½	36.1 L	FP	G&O	Tim 6666	10.4	115.0 A	Tim 1632B	Ros	Semi	8100	
Fagle 106.....	4750	144°	S 36x6	Con BT	4-4½x6	32.4 L	FP	G&O	Tim 1290	10.2	60.0	A Tim 30	Non	Semi	8600	
Fordson X 6.....	5400	163	S 36x6	Bud BTU	4-4½x6	36.1 L	FP	G&O	Tim 6700	10.4	67.38 A	Tim 1630B	Ros	Semi	8700	
Gartord 100.....	5400	162	S 36x6*	S 40x14	4-5½x6½	40.0 L	PC	K-P	Tim 6766	10.6	56.4 A	Tim 1632B	Per	Day	9450	
Gentry B50.....	4850	82	S 36x6	Own	4-4½x6½	32.4 L	FP	Own	Tim 6700	10.6	56.4 A	Tim 1732B	Mar	Day	9250	
G.M.C. K-102A.....	5100	160	S 36x6	S 40x14	4-4½x6½	32.4 L	FP	Own	Tim 6760	10.6	86.2 A	Tim 1732B	Det	Day	9050	
G.M.C. K-102B.....	5100	160	S 36x6	S 40x14	4-4½x6½	32.4 L	FP	Own	Tim 6760	10.6	86.2 A	Tim 1732B	Det	Day	9255	
Goff's-on-100.....	184	S 36x6	S 40x14	Bud BTU	4-5½x6½	40.0 L	PC	K-P	Tim 6760	11.6	110.8 B	Tim 1732B	Det	Day	12000	
Goffordson 100.....	184	S 36x6	DS40x8	Bud GL6	4-4½x6½	48.6 L	PC	K-P	Tim 1690	11.6	126.6 B	Tim 1732B	Det	Day	12400	
Grauman 10480.....	152	S 36x6*	S 40x14	Bud GL6	4-4½x5½	36.1 L	FP	Own	Tim 1600	11.6	126.6 B	Tim 30	Mat	Day	10100	
Grauman-Bernd's 50.....	152	S 36x6*	S 40x14	Bud GL6	4-4½x5½	33.7 L	FP	Own	Tim 1600	11.6	126.6 B	Tim 30	Mat	Day	8700	
Gruenwald RS.....	5400	158	S 36x6	Con B5	4-4½x6	36.1 L	PC	Pie	Tim 6766	10.6	105.7 B	Side 5FA-30	Per	Day	9700	
Halliburton K 6.....	4850	70	S 36x6	Bud YTU	4-4½x6	32.4 L	PC	Pie	Tim 6760	10.6	72.3 A	Tim 1732B	Mer	Day	8800	
Hahn R.....	5100	162°	S 36x6	S 40x12	4-4½x6	36.1 L	FP	Pha	Tim 6760	11.6	126.6 B	Tim 1732B	Mat	Day	8450	
Hassel Gottlieb.....	5100	160	S 36x6	S 40x12	4-4½x6	36.1 L	FP	Pha	Tim 6760	10.6	54.8 A	Tim 1730	Bea	Day	9900	
Indiana 41.....	170	S 36x6	S 40x14	Her G	4-4½x5½	36.1 L	PC	Own	Tim 163	11.0	65.0 B	Own 103	Own	Own	7530	
Int. Harvester 103.....	170	S 36x6	S 40x14	Own	4-4½x5½	36.1 L	PC	Own	Tim 163	11.0	65.0 B	Own 103	Own	Own	8400	
Kearns TF.....	160	S 36x6	DS36x6	Her G	4-4½x5½	36.1 L	FP	Own	Tim 163	11.0	65.0 B	Own 103	Own	Own	9000	
Kleinberg.....	152	S 36x6*	S 40x14	Own	4-4½x5½	33.7 L	FP	Own	Tim 163	11.0	65.0 B	Own 103	Own	Own	9000	
Kleinberg G.I......	152	S 36x6*	S 40x14	Own	4-4½x6½	32.4 L	FP	Own	Tim 163	11.0	65.0 B	Own 103	Own	Own	9000	
Kleinberg G.L......	152	S 36x6*	S 40x14	Own	4-4½x6½	32.4 L	FP	Own	Tim 163	11.0	65.0 B	Own 103	Own	Own	9000	
Mack AC.....	158	S 36x6	S 40x14	Con B5	4-4½x6	36.1 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Mack AC.....	158	S 36x6	S 40x14	Con B5	4-4½x6	32.4 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Old Reliable.....	156	S 36x6	S 40x14	Wau EL	4-4½x6½	40.0 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Orbukoff F.....	5180	146	S 36x6	S 40x14	Con B5	4-4½x6½	32.4 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Piper Arrow RD.....	5400	165	S 36x6	S 40x14	Con B5	4-4½x6½	36.1 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Rehberger D.....	5400	162	S 36x6	S 40x14	Con B5	4-4½x6½	36.1 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Republic 35.....	186	S 36x6	S 40x14	Wau EL	4-5x6	40.0 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Sandow L.....	175	S 36x6	S 40x12	Wau EL	4-5x6	32.4 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Sanford W50.....	174	S 36x6	S 40x14	Con B7	4-5x6	40.0 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Schacht.....	4800	168	S 36x6	S 40x14	Wau EL	4-5x6	32.4 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Selden Unit 90.....	173	S 36x6	S 40x14	Con B7	4-5x6	40.0 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Sterling DW18.....	160	S 36x6	S 40x14	Bud YBU	4-4½x6½	32.4 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Sterling EW20.....	170	S 36x6	S 40x12	Wau EL	4-4½x5½	36.1 L	FP	Mon	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
Trester F.....	4700	170	S 36x6	S 40x14	Con B7	4-5x6	40.0 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
U.S. Special.....	3550	168°	S 36x6	S 40x14	Wau EL	4-4½x6½	32.4 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
United 100.....	4775	171	S 36x6	S 40x14	Con B7	4-5x6	40.0 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Victor 85.....	4775	162	S 36x6	S 40x14	Con LA	4-4½x6½	32.4 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Ward LaFrance 5B.....	164	S 36x6	DS40x6	Wau EU	4-5x6	40.0 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700	
White 45A.....	4550	174°	S 36x6	S 40x12	Own GLB	4-4½x5½	28.9 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
White 52D.....	5100	156	S 36x6	S 40x12	Own GLB	4-4½x5½	36.1 L	PS	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Witcox FT.....	4550	162	S 36x6	S 40x12	Bud ATU	4-4½x5½	36.1 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Winter 104.....	5100	162	S 36x6	S 40x12	Wau RAU	4-4½x5½	36.1 L	PC	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
Witt Will A.....	4700	172	S 36x6	S 40x12	Con B5	4-4½x6	36.1 L	FP	Own	Tim 6666	11.6	87.5 A	Side 5FA-30	Lah	Day	9700
5½ Ton and Over																
Amc 104.....	180	\$ 36x6	S 40x14	Con B7	4-5x6	40.1 L	FP	G&O	Zen	11.6	107.0 A	Tim 1732	Det	Day	9400	
Amer. La France 76½.....	5250	180	S 36x6	DS40x7	Own 5R	4-4½x6	36.1 L	PS	Own	5R	11.6	107.0 A	Tim 1732	Det	Day	9600
Amer. La France UTP/2.....	6000	172	S 36x7	S 40x14	Bud BTU	4-5x6½	40.0 L	PC	Own	5R	11.6	107.0 A	Tim 1732	Det	Day	9800
Brickport GT-7½.....	170	S 36x6	S 40x14	Bud BTU	4-5x6½	40.0 L	PC	Pha	Zen	11.6	107.0 A	Tim 1732	Det	Day	10000	
Buck 94.....	150	S 36x6	S 40x14	Con B7	4-5x6½	40.0 L	PC	Pha	Zen	11.6	107.0 A	Tim 1732	Det	Day	9500	
Buck 96.....	160	S 36x6	S 40x14	Con IH	4-5x6½	44.6 L	PC	Pha	Zen	11.6	107.0 A	Tim 1732	Det	Day	9500	
Clinton 120SM.....	172	S 36x6	DS40x7	Wau EU	4-5x6½	40.0 L	PC	G&O	Zen	11.6	107.0 A	Tim 1732	Det	Day	10000	
Diamond T S7 7½.....	170	S 36x6	S 40x14	Her G	4-4½x5½	36.1 L	PC	Pha	Zen	11.6	107.0 A	Tim 1732	Det	Day	9700	
Eagle 107.....	5250	154°	S 36x6	S 40x14	Bud YTU	4-4½x6½	32.4 L	PC	Pha	Zen	11.6	107.0 A	Tim 1732	Det	Day	9700
Federal 645.....	5450	172	S 36x6	S 40x14	Con B5	4-4½x6	36.1 L	FP	Pha	Zen	11.6	107.0 A	Tim 1732	Det	Day	9700
Federal X8.....	5000	163	S 36x6	S 40x14	Con B5	4-4½x6	36.1 L	FP	Pha	Zen	11.6	107.0 A	Tim 1732	Det	Day	9700
Gardford 150W.....	162	S 36x6	S 40x14	Bud BTU	4-5x6½	40.0 L	PC	K-P	Own	5R	11.6	107.0 A	Tim 1732	Det	Day	10100

Gramm 10480	152°	S 36x6½	Her G	FP	8700
Gramm 10680	152°	S 36x6	Con 6B	FP	8700
Guilder L. 6-7.	170	S 36x6	Bud BTU	FP	8700
Hahn F. 120°	170	S 36x6	Con B5	FP	9600
Kelly-Springfield KST0. 5200	162°	S 36x7	Own AC	FP	9400
Mack AC7½	156°	S 36x7	S 40x12	Own AC	8 Bio
Mack AC7½	156°	S 36x7	D 40x7	Own AC	4 M-E
Master 64.	165°	S 36x6	Own AC	4 M-E	A 4
Moreland SX4-6.	165°	S 36x6	Bud BTU	4-5x6	B-L 60
Moreland SX4-6.	165°	S 36x6	S 40x14	4-5x6	B-L 60 Max
Moreland TX4-6.	165°	S 36x6	S 40x12	4-5x6	P. Own
Moreland TX4-6.	165°	S 36x6	Con 14T	4-5x6	P. Own
Pierce-Arrow RF7½.	173°	S 36x7	Con 14H	4-5x6	P. Own
Pierce-Arrow RF7½.	173°	S 36x7	D 40x12	4-5x6	P. Own
Sauer 5AD.	6000 Opt	S 40x6½	Own RF	4-5x6	Own AC
Schaeff 5AD.	5100	S 36x7	D 40x7*7	4-5x6	Own AC
Standard 5-7.	165°	S 36x7	W RBU	4-5x6	C D
Sterling EW23-6.	165°	S 36x6	Con B5	4-5x6	*9.60
Sterling EW23-6.	165°	S 36x6	S 40x12	4-5x6	62° D
Sterling EW27-7½.	174°	S 36x6	Con DU	4-5x6	Own AC
Sterling EW27-7½.	174°	S 36x6	S 40x12	4-5x6	C D
Sterling EC29-8½.	174°	S 36x6	Own EU	4-5x6	10.5°
Sterling EC35-11.	174°	S 36x6	S 40x12	4-5x6	17.4°
U. S. T.	4400	S 36x6	D 40x6	4-5x6	17.4°
Victor 90.	5200	S 36x6	Con B5	4-5x6	17.4°
Ward LaFrance 7B.	164	S 36x6	S 40x14	4-5x6	17.4°
Winton 1447.	6000	S 36x6	D 40x7	4-5x6	17.4°
Witt Will AS.	15000	S 36x6	D 40x7	4-5x6	17.4°
Gasoline Tractor-Trucks					
Acme 24.	121	P 30x5	Con S4	FP	8 Bio
Acme 36.	123	P 32x6	P 30x5	FP	8 Bio
Acme 54.	127½	P 34x5	P 34x5	FP	8 Bio
Acme 56.	134	P 34x5	P 34x5	FP	8 Bio
Acme 74.	138	P 34x5	P 34x5	FP	8 Bio
Acme 76.	141	P 36x5	P 36x5	FP	8 Bio
Acme 104.	141	P 36x6	P 40x4	4-5x6	8 Bio
Amer. La France 5 Ton.	3930	S 36x4	Own EU	4-5x6	8 Bio
Amer. La France 5 Ton.	3930	S 36x4	Bud ATU	4-5x6	8 Bio
Amer. La France 10 Ton.	4930	S 36x5	Con B5	4-5x6	8 Bio
Amer. La France 10 Ton.	4930	S 36x5	S 40x12	4-5x6	8 Bio
Amer. La France 13 Ton.	5750	S 36x6	D 40x6	4-5x6	8 Bio
Amer. La France 15 Ton.	6000	S 36x6	D 40x7	4-5x6	8 Bio
Armedee 30.	115	S 36x7	Con B5	4-5x6	8 Bio
Armedee 50.	116	S 36x4	S 40x12	4-5x6	8 Bio
Armedee 70.	119	S 36x6	Bud VBU-1	4-5x6	8 Bio
Diamond T TGT.	119½	S 36x2½	Bud YKX	4-5x6	8 Bio
Diamond TU41.	129½	S 36x4	Own EU	4-5x6	8 Bio
Diamond T K2T.	118½	S 36x5	D 40x6	4-5x6	8 Bio
Diamond T S2T.	140	S 36x6	D 40x6	4-5x6	8 Bio
Federal HD.	3200	S 36x4	D 40x7	4-5x6	8 Bio
Federal HD.	4235	S 36x5	D 38x4	4-5x6	8 Bio
Garford 50.	130	S 36x5	D 38x5	4-5x6	8 Bio
Garford 80.	132	S 36x5	S 36x5	4-5x6	8 Bio
G.M.C. K-22T.	132	S 36x5	S 36x5	4-5x6	8 Bio
G.M.C. K-22T.	140	S 36x6	S 36x6	4-5x6	8 Bio
G.M.C. K-10T.	137	S 36x7	S 36x7	4-5x6	8 Bio
G.M.C. K-10T.	137	S 36x7	D 38x4	4-5x6	8 Bio
G.M.C. K-16T.	111½	S 36x5	D 38x5	4-5x6	8 Bio
Harvey WHT. 6 Ton.	3560	S 36x5	D 38x5	4-5x6	8 Bio
Int. Harvester 43.	115	S 36x6	S 36x6	4-5x6	8 Bio
Int. Harvester 63.	120	S 36x5	S 36x5	4-5x6	8 Bio
Int. Harvester 102.	134	S 36x6	S 40x4	4-5x6	8 Bio
Kelly-Springfield K-10.	2000	S 36x6	S 36x4	4-5x6	8 Bio
Kelly-Springfield K-10.	2000	S 36x6	S 36x4	4-5x6	8 Bio
Kelly-Springfield K-12.	3600	S 36x6	S 36x5	4-5x6	8 Bio
Kelly-Springfield K-12.	3600	S 36x6	S 36x5	4-5x6	8 Bio
Kelly-Springfield K-42.	4400	S 36x6	S 36x5	4-5x6	8 Bio
Kelly-Springfield K-61.	5000	S 36x6	S 36x6	4-5x6	8 Bio
Pierce-Arrow XB.	3750	S 36x7	S 36x7	4-5x6	8 Bio
Pierce-Arrow RD.	5400	S 36x7	S 36x7	4-5x6	8 Bio
Pierce-Arrow RF.	5600	S 36x6	S 36x6	4-5x6	8 Bio
Mack AC 7-Ton.	5700	S 36x6	S 36x6	4-5x6	8 Bio
Mack AC 7-Ton.	5700	S 36x6	S 36x6	4-5x6	8 Bio
Mack AC 10-Ton.	6100	S 36x6	S 36x6	4-5x6	8 Bio
Mack AC 13-Ton.	6400	S 36x6	S 36x6	4-5x6	8 Bio
Mack AC 15-Ton.	6700	S 36x6	S 36x6	4-5x6	8 Bio
Service 61.	127½	S 36x6	S 36x6	4-5x6	8 Bio
Passenger Cars					
DS40x6	Her G	FP	8700	B	8700
DS40x6	Con 6B	FP	8700	B	8700
S 36x6	Bud BTU	FP	8700	B	8700
S 36x6	Con B5	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	8700
S 36x7	D 40x7	FP	8700	B	8700
S 36x7	Own AC	FP	8700	B	8700
S 36x7	S 40x12	FP	8700	B	87

Gasoline Tractor-Trucks—Continued

MAKE AND MODEL	GENERAL		ENGINE		ELECTRICAL SYSTEM		TRANSMISSION		REAR AXLE		FRONT AXLE		TIRES AND WHEELS		DIMENSIONS (In.)			
	WEIGHT Chassis Gross Cwt.	Body Gross Cwt.	Make and Model	Make and Model	Batteries	Generator and Battery	Normal Speed	Clutch	Gearset	Brake Location	Front Axle	Brake Location	Front Axle	Wheel Type	Front Height	Overall Width		
Ace C. 16.....	30	6500	5000	204	Con 7T	RBo	USL	12-110	35	6.0	D. BL	B.L. 55	Pet	Tim 6516	34	27 1/2		
Ame 16.....	18	4900	200	205	Con 7T	Eis	Eis	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2		
Acme 12.....	22	6110	9280	200	205	Con 7T	Eis	Eis	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
American-LaFrance 4R	26	8700	.....	226	Own 4R	Eis	Eis	12-140	27	6.0	D. Own	Own	4 Pet	Tim 6516	34	27 1/2	
Arider 4R.....	28	9100	.....	226	Own 4R	Eis	Eis	12-140	27	6.0	D. Own	Own	4 Pet	Tim 6516	34	27 1/2	
Bridgeport HB.....	29	6500	9900	4500	224	Hud B	USL	12-130	45	5.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2		
Brockway EB.....	18	3875	6350	2500	153	Wls SU	Eis	Eis	12-220	42	10.0	D. BL	B.L. 30	3 Pet	Tim 6516	34	27 1/2	
Brockway EB4.....	18	4000	6400	2500	153	Wls EY	Eis	Eis	12-220	45	11.0	D. BL	B.L. 30	3 Pet	Tim 6516	34	27 1/2	
Brockway H.....	22	6450	7975	3000	164	Wls HB	Eis	Eis	12-220	45	8.5	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Brockway HJ.....	29	7080	11000	5000	221	Wls H	Eis	Eis	12-220	40	6.5	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Clinton 65B.....	30	5925	8700	2725	184	Wau CU	Own	Zen	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Commerce 60.....	35	6600	9600	3000	229	Con 6B	Eis	Eis	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Commerce 65.....	25	29	8220	3500	242	Con 14H	Eis	Eis	12-153	35	5.0	D. BL	B.L. 60H	4 Pet	Tim 6516	34	27 1/2
Concord Bus.....	25	29	8220	3500	242	Con 14H	Eis	Eis	12-230	40	5.0	D. BL	B.L. 51P	4 Pet	Tim 6516	34	27 1/2
Day-Elder 20.....	35	6300	7700	2500	168	Bud KBU	Eis	Eis	6-153	35	10.0	D. BL	B.L. 35	4 Pet	Tim 6516	34	27 1/2	
Day-Elder 26.....	35	6600	8600	3000	180	Con 6B	Eis	Eis	6-153	35	7.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2	
Day-Elder 30.....	30	7000	10500	3500	216	Con 6B	Eis	Eis	6-153	35	7.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2	
Dandy 36.....	30	7000	10500	3500	216	Con 6B	Mod	Str	12-153	30	5.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2	
Doris L6 Parlor Car.	17	4300	7700	3500	176	Own 4R	Mod	Str	12-130	40	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Doris L6 Parlor Car.	25	6475	11000	5000	224	Own 4R	Mod	Str	12-130	35	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Doris L6 (gas elec.)	29	7875	12875	4500	224	Own	Mod	Str	12-130	35	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Doris L6 Parlor Car.	21	5100	9075	3500	190	Own	Mod	Str	12-130	35	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fageol Parlor Car.	26	6770	10550	230	188	Has 75	Mod	Str	12-118	35	7.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fageol Street Car.	29	6480	10000	238	188	Has 50.	Mod	Str	12-118	35	7.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Federal 5.....	25	5450	8500	2500	180	Con 6B	Eis	Eis	6-153	35	6.0	P. & B.	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fifth Ave. J.....	25	5850	8530	2500	172	Yell EZ	Eis	Eis	6-153	30	7.5	P. & B.	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fifth Ave. L.....	65	6850	12040	5190	174 1/2	Yell EZ	Mod	Str	12-150	27	5.0	P. & B.	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Garford 51D.....	29	6500	9900	3400	187	Bud Bus	Oval	Mod	Str	6-190	35	5.0	D. Own	B.L. 51	4 Pet	Tim 6516	34	27 1/2
Garford 51D.....	21	3300	6000	2400	180	Wls Z.	Oval	Mod	Str	6-153	35	7.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2
Garford CB.....	29	6500	11300	4400	220	Wls Z.	Oval	Mod	Str	12-153	57	11.9	D. BL	B.L. 60S	4 Pet	Tim 6516	34	27 1/2
Gary 45B.....	40	.....	.....	.....	220	Hud GL6	Mod	Str	12-153	57	11.9	D. BL	B.L. 60S	4 Pet	Tim 6516	34	27 1/2

For Other Chassis Which Are Recommended and Adaptable for Bus Use, See Models Having Sign (§) in the "COMMERCIAL CAR SPECIFICATIONS"

MAKE AND MODEL	GENERAL		ENGINE		ELECTRICAL SYSTEM		TRANSMISSION		REAR AXLE		FRONT AXLE		TIRES AND WHEELS		DIMENSIONS (In.)			
	WEIGHT Chassis Gross Cwt.	Body Gross Cwt.	Make and Model	Make and Model	Batteries	Generator and Battery	Normal Speed	Clutch	Gearset	Brake Location	Front Axle	Brake Location	Front Axle	Wheel Type	Front Height	Overall Width		
Ace C. 16.....	30	6500	5000	204	Con 7T	RBo	USL	12-110	35	6.0	D. BL	B.L. 55	Pet	Tim 6516	34	27 1/2		
Ame 16.....	18	4900	200	205	Con 7T	Eis	Eis	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2		
Acme 12.....	22	6110	9280	200	205	Con 7T	Eis	Eis	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
American-LaFrance 4R	26	8700	.....	226	Own 4R	Eis	Eis	12-140	27	6.0	D. Own	Own	4 Pet	Tim 6516	34	27 1/2	
Arider 4R.....	28	9100	.....	226	Own 4R	Eis	Eis	12-140	27	6.0	D. Own	Own	4 Pet	Tim 6516	34	27 1/2	
Bridgeport HB.....	29	6500	9900	4500	224	Hud B	USL	12-130	45	5.0	D. BL	B.L. 51	Pet	Tim 6516	34	27 1/2		
Brockway EB.....	18	3875	6350	2500	153	Wls SU	Eis	Eis	12-220	42	10.0	D. BL	B.L. 30	3 Pet	Tim 6516	34	27 1/2	
Brockway EB4.....	18	4000	6400	2500	153	Wls EY	Eis	Eis	12-220	45	11.0	D. BL	B.L. 30	3 Pet	Tim 6516	34	27 1/2	
Brockway H.....	22	6450	7975	3000	164	Wls HB	Eis	Eis	12-220	45	8.5	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Brockway HJ.....	29	7080	11000	5000	221	Wls H	Eis	Eis	12-220	40	6.5	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Clinton 65B.....	30	5925	8700	2725	184	Wau CU	Own	Zen	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Commerce 60.....	35	6600	9600	3000	229	Con 6B	Eis	Eis	6-133	35	6.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Commerce 65.....	25	29	8220	3500	242	Con 14H	Eis	Eis	6-153	35	5.0	D. BL	B.L. 60H	4 Pet	Tim 6516	34	27 1/2
Concord Bus.....	25	29	8220	3500	242	Con 14H	Eis	Eis	12-153	35	5.0	D. BL	B.L. 60H	4 Pet	Tim 6516	34	27 1/2
Day-Elder 20.....	35	6300	7700	2500	168	Bud KBU	Eis	Eis	6-153	35	10.0	D. BL	B.L. 35	4 Pet	Tim 6516	34	27 1/2	
Day-Elder 26.....	35	6600	8600	3000	180	Con 6B	Eis	Eis	6-153	35	7.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2	
Day-Elder 30.....	30	7000	10500	3500	216	Con 6B	Eis	Eis	6-153	35	7.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2	
Dandy 36.....	30	7000	10500	3500	216	Con 6B	Mod	Str	12-153	30	5.0	D. BL	B.L. 51	4 Pet	Tim 6516	34	27 1/2	
Doris L4 Parlor Car.	17	4300	7700	3500	176	Own 4R	Mod	Str	12-130	40	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Doris L6 Parlor Car.	25	6475	11000	5000	224	Own 4R	Mod	Str	12-130	35	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Doris L6 (gas elec.)	29	7875	12875	4500	224	Own	Mod	Str	12-130	35	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Doris L6 Parlor Car.	21	5100	9075	3500	190	Own	Mod	Str	12-130	35	5.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fageol Parlor Car.	26	6770	10550	230	228	Has 75	Mod	Str	12-118	35	7.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fageol Street Car.	29	6480	10000	238	228	Has 50.	Mod	Str	12-118	35	7.0	D. BL	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Federal 5.....	25	5450	8500	2300	180	Con 6B	Eis	Eis	6-153	35	6.0	P. & B.	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fifth Ave. J.....	25	5850	8530	2300	176	Own 4R	Eis	Eis	6-153	30	7.5	P. & B.	B.L. 55	4 Pet	Tim 6516	34	27 1/2	
Fifth Ave. L.....	65	6850	12040	5190	174 1/2	Yell EZ	Mod	Str	12-150	27	5.0	P. & B.	B.L. 55					

Goofredson 561-20	29	... 2285 ^{1/2} Bud GU-6	... E-B-A	W-H	12-250	... 4.0	E-Dod	Dod	Tim	W-V	Bud	P 3658
Goofredson 561-20	29	3700 6200	... 2000	NE	12-90	30	E-Dod	Dod	S-A	S-A	Cla	30
Graham Big YB	15	3100 5000	2000 164	NE	12-95	40	E-Cov	Cov	Own	Own	Son	21
Graham Big YB	15	3100 5000	2000 164	NE	12-95	50	E-Ful	Ful	Col 5300	Col 5300	Son	21
Graff 6-15	20	4180 7180	3000 184°	Own	6-135	40	E-Ful	Ful	Col 1502	Col 1502	Son	21
Graff 6-15	20	4180 7180	3000 184°	Own	6-135	50	E-Ful	Ful	Col 1502	Col 1502	Son	21
Graff 6-25	25	4750 7750	3000 184°	Own	6-135	38	E-Ful	Ful	Col 5200	Col 5200	Son	22
Graff Premier ZR3	25	5150 8600	3500 200	Own	6-135	20	E-Ful	Ful	DP 3475	DP 3475	Van	33
Guilder 20	17	6500	152	Chi	6-	40	E-B-L	B-L	DP 3365	DP 3365	Bud	24
Guilder 20	17	6500	152	Chi	6-	40	E-B-L	B-L	DP 3256	DP 3256	Bud	25
Guilder 35	25	6000	204	Chi	6-	40	E-B-L	B-L	DP 3226	DP 3226	Bud	26
Guilder 36	25	6000	204	Chi	6-	40	E-B-L	B-L	DP 3226	DP 3226	Bud	26
Hahn K.	27	4900 8400	195	Con 6B	6-3½x5½	6-3½x5½	Chi	Chi	She 445	She 445	Opt	24
Hahn K.	27	6800 10300	245	Con 14H	6-4½x5½	6-4½x5½	Chi	Chi	She D484	She D484	Opt	24
Hahn O.	20	4700 7500	144	Her OX	4-3½x5½	4-3½x5½	Chi	Chi	She D445	She D445	Opt	24
Int. Harvester SLC-34	16	... 160	Lyc YSG	6-3½x5½	6-3½x5½	Chi	Chi	She 5101	She 5101	Opt	24	
Int. Harvester SLC-36	16	... 160	Lyc YSG	6-3½x5½	6-3½x5½	Chi	Chi	She 5101	She 5101	Opt	24	
Kissel	21	7725	2400 182	Own OB6	6-3½x5½	6-3½x5½	Fed	Str	Tim 2341H	Tim 2341H	Opt	24
Larrabee XH4	25	6800 10000	3000 220	Con 6B	6-3½x5½	6-3½x5½	Fed	Zen	Tim 5620H	Tim 5620H	Opt	24
Larrabee XH1	21	5600 9000	3400 210	Bud BUW	6-3½x5½	6-3½x5½	Fed	Zen	Tim 5622S	Tim 5622S	Opt	24
Maeer	29	7500 12000	4500 164	Own AB	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AB City Type	22	225 ^{1/2}	225 ^{1/2}	Own AB	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AB City Type	22	225 ^{1/2}	225 ^{1/2}	Own AB	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AB Par. Car.	25	8385 11635	3270 196	Her OX	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AB (gas-elec.)	29	8345 12425	3860 225	Own AB	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AB (gas-elec.)	29	8345 12425	3860 225	Own AB	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AB Par. Car.	25	8345 12425	3860 225	Own AB	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AL Par. Car.	25	8345 12425	3860 225	Own AL	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AL Par. Car.	25	8345 12425	3860 225	Own AL	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Mack AL (gas-elec.)	29	8345 12425	3860 225	Own AL	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Menominee T	26	9100 1300	2300 165	Wis H	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Menominee T	26	9100 1300	2300 165	Wis H	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Moreland RC	20	3650 5850	2000 180	Her OX	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Moreland RC	20	3650 5850	2000 180	Her OX	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Pierce-Arrow Z.	25	5600 9100	3500 187	Con KA	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Pierce-Arrow Z.	25	6100 9100	3000 186	Own Con KA	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Pierce-Arrow Z.	25	6100 9100	3000 186	Own Con KA	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Riehleger H3	25	6800 10300	3500 204	Bud BUW	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Riehleger H3	25	7000 10500	3500 204	Bud BUW	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Reo W Sedan	16	3100 7250	3500 176	Own	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Reo W Pav.-Enter	21	4300 7000	7175 1650	Own	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Reo W Inter City	21	4300 7000	7175 1650	Own	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Reo W Chair Coach...	21	4200 7725	3500 176	Own	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Republic 81.	15	6300 9700	3500 220	Lyc Z	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Royal D.	25	6800 10300	3500 204	Bud BUW	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Royal E.	29	7100 1200	3600 220	Wis Z	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Ruggles 60	19	4900 6300	180	Lyc Z	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Ruggles 65...	25	5900	200	Wis Z	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Ruggles 70	26	7600	224	Con 12T	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Saleway 6 WH-64...	28	8070	225	Con 12T	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Saleway 6 WH-65...	28	8070	225	Con 14H	6-4½x5½	6-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Schacht	25	4000 2170	200	Wis Z	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Selden Roadmaster	18	3650	200	Wis Z	6-3½x5½	6-3½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Sterling G12...	29	5200	3000 210	Con GB	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Sterling G12...	29	6100	3000 210	Con GB	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Sterling G12...	29	6200	198	Own CLU	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Studebaker 14B...	21	4085	184	Own TW	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Studebaker 14B...	21	4100	210	Wau Z	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Union GW...	29	6500 11600	3600 240 ^{1/2}	Wau Z	4-4½x5½	4-4½x5½	Fed	Zen	Tim 67300	Tim 67300	Opt	24
Union EC...	21	4500 7000	2321 221	Con 14H	6-1½x5½	6-1½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Victor 30B...	35	9000 9400	3400 196	Wau DU	4-4½x5½	4-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Ward La France 3B...	26	6300 6635	158	Wis Z	6-3½x5½	6-3½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Studebaker 14B...	20	3760	184	Own GRB	4-4½x5½	4-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
White 63...	29	4085	184	Own GRB	4-4½x5½	4-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Twin City DW...	26	7500 11600	4100 210	Wau	4-4½x5½	4-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Union EC...	21	4800 8300	3500 210	Wau	6-3½x5½	6-3½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Yellow Coach Z...	17	4800 9550	4750 210	Yel	6-3½x5½	6-3½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Yellow Coach X...	29	6400 12500	6040 225	Yel	6-3½x5½	6-3½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Yellow Coach Y...	29	6650 11170	4520 200	Yel	6-4½x5½	6-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Yellow Coach Z...	67	7515 13885	6370 200	Yel	6-4½x5½	6-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Yellow Coach Z...	33	9145 14110	4965 230	Yel	6-4½x5½	6-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Yellow Coach Z Gas Elec.	33	9145 14110	4965 230	Yel	6-4½x5½	6-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24
Yellow Coach Z Gas Elec.	66	10350 17350	7000 270	Yel	6-4½x5½	6-4½x5½	Fed	A-J	Tim 67300	Tim 67300	Opt	24

KEY OF ABBREVIATIONS

Wheelbase:

°—More than one wheelbase furnished.

Tires:

B—Balloon.
P—Pneumatics standard equipment.

S—Solids.
DP—Dual pneumatics standard equipment.
DS—Dual solids.

† This sign after tire size indicates that pneumatics can be furnished at extra cost.

Engine:

Bud—Buda Co., Harvey, Ill.

Con—Continental M. Corp., Detroit, Mich.

D—Head and Side.

FP—Full Pressure to all bearings including wrist pins.

H—Overhead.

HaS—Hall-Scott Motor Car Co., Berkeley, Cal.

Her—Hercules Motors Corp., Canton, Ohio.

Himico—Hinkley Motors & Parts Corp., Jackson, Mich.

Hin—Hinkley Motors & Parts Corp., Jackson, Mich.

I—In Head.

Jackson—Master Motor Truck Mfg. Co., Chicago, Ill.

Kni—Yellow Sleeve Valve Eng. Works, East Moline, Ill.

L—L-Head.

Lyc—Lycoming M. Corp., Williamsport, Pa.

PC—Pressure to all crankshaft and connecting-rod bearings.

PS—Pressure with splash.

SP—Circulating splash.

T—T-Head.

Wau—Waukesha M. Co., Waukesha, Wis.

Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.

Yell—Yellow Sleeve V. E. Works, E. Moline, Ill.

X—Sleeve.

Governor:

Con—Continental M. Corp., Detroit, Mich.

Dup—Eisemann Magneto Corp., New York.

Han—Handy Gov. Co., Detroit, Mich.

Hin—Hinkley Motors & Parts Corp., Jackson, Mich.

K. P.—K. P. Products Co., New York, N. Y.

McC—E. R. Klemm, Chicago, Ill.

Mon—Monarch Gov. Co., Detroit, Mich.

Non—Not Supplied.

Pha—Pharo Mfg. Co., Bethlehem, Pa.

Pie—Pierce Governor Co., Anderson, Ind.

Sim—Eisemann Magneto Corp., New York.

Tac—Tractor Appliance Co., New Holstein, Wis.

Wau—Waukesha M. Co., Waukesha, Wis.

Radiator:

Bus—Bush Mfg. Co., Hartford, Conn.

Chi—Chicago Mfg. Co., Chicago, Ill.

E-M—English & Mersick Co., New Haven, Conn.

Fed—Fedders Mfg. Co., Buffalo, N. Y.

Fle—Flexo Mfg. Co., Los Angeles, Cal.

G&O—G. & O. Mfg. Co., New Haven, Conn.

Har—Harrison Rad. Corp., Lockport, N. Y.

Idl—Ideal Sheet Metal Works, Chicago, Ill.

Liv—Livingston Rad. Corp., Plainfield, N. J.

Lon—Long Mfg. Co., Detroit, Mich.

McC—McCord Rad. & Mfg. Co., Detroit, Mich.

McK—McKinnon Dash Co., Buffalo, N. Y.

Mod—Modine Mfg. Co., Racine, Wis.

Per—Racine Radiator Co., Racine, Wis.

R-T—Rome-Turney Rad. Co., Rome, N. Y.

Spa—Sparks-Withington Co., Jackson, Mich.

Stn—Standard Radiator Co., Inc., Springville, N. Y.

Tyr—Tyre Auto Rad. Mfg. Co., Chicago, Ill.

U. S.—U. S. Cartridge Co., Lowell, Mass.

Fuel System:

B.B.—Penberthy Injector Co., Detroit, Mich.

Car—Carter Carburetor Co., St. Louis, Mo.

Ens—Ensign Car. Co., Los Angeles, Cal.

G—Gravity.

Hol—Holley Carburetor Co., Detroit, Mich.

John—Johnson Co., Detroit, Mich.

Mar—Marvel Carburetor Co., Flint, Mich.

P—Pressure.

Ray—Beneke Mfg. Co., Chicago, Ill.

Sch—Wheeler Schebler Carburetor Co., Indianapolis, Ind.

Ste—Detroit Lubricator Co., Detroit, Mich.

Str—Stromberg Motor Devices Co., Chicago, Ill.

Til—Tillotson Mfg. Co., Toledo, Ohio.

V—Vacuum.

Zen—Zenith-Detroit Corp., Detroit, Mich.

Electrical Systems:

‡—Generator & Starter at Extra Cost.

†—Starter not supplied, Generator at Extra Cost.

*—Starter at Extra Cost.

A-L—Electric Auto-Lite Corp., Toledo, O.

Alc—Cincinnati S. B. Co., Cincinnati, O.

Apo—Apolo Magneto Corp., Kingston, N. Y.

Bij—Bijur Motor Appliance Co., Hoboken, N. J.

Bos—American Bosch Magneto Co., Springfield, Mass.

Con—Connecticut Telephone & Electric Co., Meriden, Conn.

Del—Delco-Remy Corp., Dayton, Ohio.

DJ—DeJohn Elec. Corp., Toledo, Ohio.

Eis—Eisemann Magneto Corp., New York.

Exi—Electric S. B. Co., Phila., Pa.

G&D—Gray & Davis, Boston, Mass.

Gou—Gould S. B. Co., New York.

Hob—Hobbs Battery Co., Los Angeles, Cal.

L-N—Leece-Neville Co., Cleveland, Ohio.

N-E—North East Elect. Co., Rochester, N. Y.

Non—Not Supplied.

Pol—Prest-O-Lite Co., Indianapolis, Ind.

Rem—Delco-Remy Corp., Anderson, Ind.

RBo—Robert Bosch Magneto Co., New York, N. Y.

Sci—Scintilla Magneto Co., Sidney, N. Y.

Sim—Simms Magneto Co., E. Orange, N. J.

Spl—Spliditor Electrical Co., Newark, N. J.

USL—U. S. Light & Heat Corp., Niagara Falls, N. Y.

Ves—Vesta Battery Corp., Chicago, Ill.

Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.

Wil—Willard S. B. Co., Cleveland, Ohio.

Clutch and Gearset:

*—Other ratios optional.

A—Amidships.

B—B-Borg & Beck Co., Chicago, Ill.

B-L—Brown-Lipe Gear Co., Syracuse, N. Y.

Cot—Cotta Trans. Corp., Rockford, Ill.

Cov—Covert Gear Co., Lockport, N. Y.

Det—A. J. Dettaff Co., Detroit, Mich.

D-G—Detroit Gear & Machine Co., Detroit, Mich.

Dod—Dodge Brothers Co., Detroit, Mich.

D—Disk.

Dur—Durston Gear Corp., Syracuse, N. Y.

Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.

H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.

Hoo—Hoosier Clutch Co., Muncie, Ind.

J—Unit with Jackshaft.

K—Cone.

Lon—Long Mfg. Co., Detroit, Mich.

M—Merchant & Evans Co., Phila., Pa.

M. M.—Mechanics Mach. Co., Rockford, Ill.

Mun—Muncie Gear Works, Muncie, Ind.

O—Disk in Oil.

P—Plate.

R—Rear Axle.

Roc—Rockford Drilling Machine Co., Rockford, Ill.

S—Separate Unit.

U—Unit with Engine.

W-G—Warner Gear Co., Muncie, Ind.

Universal:

B.G.—Universal Machine Co., Bowling Green, Ohio.

Blo—Blood-Bros. Mach. Co., Allegan, Mich.

Det—Universal Products Co., Detroit, Mich.

Har—Spicer Mfg. Co., S. Plainfield, N. J.

M—Merchant & Evans Co., Phila., Pa.

M. M.—Mechanics Machine Co., Rockford, Ill.

Pet—Cleveland Universal Parts Co., Cleveland, Ohio.

Pic—Carl Pick Co., West Bend, Wis.

Sne—Spicer Mfg. Corp., S. Plainfield, N. J.

Spi—Spicer Mfg. Co., S. Plainfield, N. J.

Thei—Thermoid Rubber Co., Trenton, N. J.

Thei—Almetal Universal Joint Co., Cleveland, Ohio.

U-M—Universal Machine Co., Bowling Green, Ohio.

U-P—Universal Products Co., Detroit, Mich.

Front and Rear Axles:

½—Semi-Floating.

¾—Three-Quarter Floating.

B—Straight Bevel.

Cla—Clark Equip. Co., Buchanan, Mich.

Col—Columbia Axle Co., Cleveland, Ohio.

Con—Continental Axle Co., Edgerton, Wis.

C—Chain.

D—Dead.

Eat—Eaton Axle Co., Cleveland, Ohio.

F—Floating.

I—Internal Gear.

P—Spur Gear.

R—Double Reduction.

Rus—Russel Motor Axle Co., Detroit, Mich.

S—Spiral Bevel.

Sal—Salisbury Axle Co., Jamestown, N. Y.

She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.

Shu—Shuler Axle Co., Inc., Louisville, Ky.

Std—Standard Parts Co., Cleveland, Ohio.

Tim—Timken Det. Axle Co., Detroit, Mich.

Tor—Eaton Axle & Spring Co., Cleveland, Ohio.

Vul—Vulcan Motor Axle Co.

Wal—Walker Axle Co., Chicago, Ill.

W—Worm.

Wis—Wisconsin Parts Co., Oshkosh, Wis.

Brake:

A—Rear Wheels only.

B—Drive Shaft and Rear Wheels.

C—6 Wheel Brakes.

D—Jackshaft and Rear Wheels.

E—4 Wheel Brakes.

Springs:

Ame—American Autoparts Co., Detroit, Mich.

Arm—General Motors Co., Pontiac, Mich.

Bea—Eaton Spring Corp., Detroit, Mich. & Massillon, O.

Bet—Betts Bros. Sp. Co., San Francisco, Cal.

Cha—Champion Auto Sp. Co., St. Louis, Mo.

Del—D. Delany & Son, Newark, N. J.

Det—Detroit Steel Prod. Co., Detroit, Mich.

G-C—Garden City Sp. Works, Chicago, Ill.

Har—Harvey Sp. & Forging Co., Racine, Wis.

I. C.—Iron City Sp. Co., Pittsburgh, Pa.

Lah—Laher Auto Spring Co., Portland, Ore.

Mar—Maremont Mfg. Co., Chicago, Ill.

Mat—Mather Spring Co., Toledo, Ohio.

Mer—E. R. Merrill Spring Co., New York.

Pen—Penn Sp. Works, Baldwinsville, N. Y.

Per—Eaton Bum. & Sp. Co., Cleveland, O.

Row—William & Harvey Rowland, Phila., Pa.

She—Sheldon Axle & Sp. Co., Wilkes-Barre, Pa.

S. P.—Spring Perch Co., Stratford, Conn.

S. S.—Standard Steel Sp. Co., Coraopolis, Pa.

Steering Gear:

CAS—C. A. S. Products Co., Columbus, O.

D-G—Detroit Gear & Machine Co., Detroit, Mich.

Dod—Dodge Bros. Co., Detroit, Mich.

Gem—Gemmer Mfg. Co., Detroit, Mich.

Han—Hannum Mfg. Co., Milwaukee, Wis.

Jac—Saginaw Products Co., Saginaw, Mich.

Lav—Hannum Mfg. Co., Milwaukee, Wis.

Ros—Ross Gear & Tool Co., Lafayette, Ind.

Woh—Wohlrab Gear Co., Racine, Wis.

Wheels:

Arc—Archibald Wheel Co., Lawrence, Mass.

A-W—Auto Wheel Co., Lansing, Mich.

Bet—Bethlehem Steel Co., Bethlehem, Pa.

Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.

Bud—Budd Wheel Co., Phila., Pa.

Cla—Clark Equip. Co., Buchanan, Mich.

Day—The Dayton Steel Foundry Co., Dayton, Ohio.

Dis—Motor Wheel Corp., Lansing, Mich.

Hay—Hayes Wheel Co., Jackson, Mich.

Hoo—Hoopes, Bro. & Darlington, Inc., West Chester, Pa.

Ind—Indestructible Wheel Co., Lebanon, Ind.

Int—Interstate Foundry Co., Chicago, Ill.

Jon—Phineas, Jones & Co., Hillside, N. J.

Kel—Kelsey Wheel Co., Detroit, Mich.

M-M—Michigan Malleable Iron Co., Detroit, Mich.

Mot—Motor Wheel Corp., Lansing, Mich.

Mun—Muncie Wheel Co., Muncie, Ind.

Nor—Northern Wheel Corp., Alma, Mich.

Pru—Prudden Wheel Co., Lansing, Mich.

Roy—Royer Wheel Co., Aurora, Ind.

Sch—St. Marys Wheel & Spoke Co., St. Marys, Ohio.

Smi—Smith Wheel, Inc., Syracuse, N. Y.

STM—St. Marys Wheel Co., St. Marys, O.

Std—Standard Wheel Co., Terre Haute, Ind.

Van—Van Wheel Corp., Oneida, N. Y.

Way—Wayne Wheel Co., Newark, N. Y.

Electric Commercial Cars

Name and Model Number	Total Weight Reating on Four Tires	Chassis Weight— Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Spring	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Autoar E 1F	10000	3650			2400	A	G-E	G-E	5	R	Own	Row S 34x4	S 34x5	Ros	107	60	
Autoar E 2D	15000	4300			2800	A	G-E	G-E	5	R	Own	Row S 34x5	S 34x6	Ros	120	60	
Autoar E 3H	18000	4900			3200	A	G-E	G-E	5	R	Own	Row S 34x5	S 36x8	Ros	131	60	
Autoar E 4Y	26000	6800			4000	A	G-E	G-E	5	R	Own	Row S 34x6	DS36x6	Ros	138	60	
Autoar E 5M	30000	7200			4300	A	G-E	G-E	5	R	Own	Row S 36x7	DS36x7	Ros	138	60	
C-T-H1	5600	2400			14	A	55	G-E	Own	4	Own	F	She S 36x3½	S 36x4	W	108	67		
C-T F1.5	6600	2800			14	A	60	G-E	Own	4	Own	F	She S 36x3½	S 36x4	W	94	67		
C-T H1.5	6600	2800			14	A	60	G-E	Own	4	Own	F	She S 36x3½	S 36x4	W	116	67		
C-T F2.	8000	3100			14	A	50	G-E	Own	4	Own	F	She S 36x3½	S 36x5	W	96	67		
C-T H2.	8000	3100			14	A	50	G-E	Own	4	Own	F	She S 36x3½	S 36x5	W	124	67		
C-T F4.	11950	4200			12	A	50	G-E	Own	4	I	D	She S 36x4	DS36x4	W	116	67		
C-T A-7.	17700	5800			11	A	45	G-E	Own	4	I	D	She S 36x6	DS36x4	W	122	58		
C-T F-7.	17800	6000			11	A	45	G-E	Own	4	Own	F	She S 36x5	DS36x5	W	136	67		
C-T A-10.	22250	6500			10	A	45	G-E	Own	4	I	D	She S 36x7	DS36x5	W	132	58		
C-T F-10.	22750	7000			10	A	45	G-E	Own	4	Own	F	She S 36x8	DS36x6	W	152	67		
C-T F-14.	28850	8000			8	A	45	G-E	Own	4	Own	F	She S 36x7	DS36x7	W	152	67		
Electruck 48.	8700	3600	2000	3000	2000	15	A	50	G-E	4	C	Own	Eat S 34x4	S 34x5	Ros	112	60		
Electruck 39.	10400	4200	4000	5000	2500	15	A	50	G-E	4	C	Own	Eat S 34x4	S 34x6	Gem	122	60		
Electruck 27.	32000	12200	15000	20000	6000	12	A	50	G-E	Own	5	C	Own	Eat S 36x7	S 40x14	Gem	168	70	
Milburn 43.	3790	1690	1000	1500	1585	17	H	50	G-E	Own	4	W	She P 32x4½	P 32x4½	Ros	115	60		
O. B-B.					13	S 36x4	DS36x3½	Own	107	
O. B-C.					11	S 36x5	DS36x4	Own	135	
O. B-D.					10	S 36x6	DS36x5	Own	143	
Steinmetz 15.	6800	2200	1000	2250	1800	18	H&S	60	Own	4	R	Own	Lig P 32x4½	P 32x4½	Lav	114	55		
Walker 12.		1900			15	H&S	50	G-E	Own	4	.....	.....	Det S 36x3½	S 36x3½	Ros	104	66
Walker 18.		3000			14	A	50	Wes	Own	5	Own	.....	Mat S 34x3	S 36x4	Ros	94	66	
Walker 24.		3200			13	A	50	Wes	Own	5	Own	.....	Mat S 34x3½	S 36x5	Ros	101	66	
Walker 42.		4200			13	A	50	Wes	Own	5	Own	.....	Mat S 36x4	S 36x6	Ros	114	66	
Walker 60.		6500			11	A	40	G-E	Own	5	Own	Own	Mat S 36x5	DS40x5	Ros	131	66		
Walker 70.		7200			10	A	40	G-E	Own	5	Own	Own	Mat S 36x6	DS40x6	Ros	141	66		
Ward A211.	4650	1800	600	1150	15	S	75	G-E	Own	4	W	She S 32x3	S 32x3½	Own	88	56			
Ward B-222.	6000	2300	1020	1700	14	.....	84	G-E	Own	4	W	She S 32x3½	S 32x4	Own	91	62		
Ward C-211.	8000	2670	2170	2880	13	S	65	G-E	Own	4	W	She S 32x3½	S 34x5	Own	96	64			
Ward E-211.	12000	3570	4290	5430	12½	S	56½	G-E	Own	4	W	She S 34x4	S 36x6	Own	108	65			
Ward G-211.	16000	4500	6180	7760	11	S	44	G-E	Own	5	W	She S 36x5	S 36x8	Own	120	68			
Ward J-211.	22500	6630	9500	11200	10	S	39½	G-E	Own	5	W	She S 36x6	S 36x10	Own	136	70			
Ward M-211.	30000	8430	13780	15920	9	S	36	G-E	Own	5	W	She S 36x7	DS36x7	Own	152	71			

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A-amidships; H-under hood; and S-under seat

After the Million Mark in 1926

(Continued from page 13)

what he asks for. He sees sellers as well as buyers.

Asked what was the best selling appeal to the truck prospect, particularly the owner with junk to trade, Hayden said, "the appeal to the thinking man. Our salesmen are instructed to set the prospect to thinking of the proposition as a business deal and a smart trade. Ultimate value is what counts with the real business man when buying a truck. Our salesmen, when calling on a prospect who first is interested in starting a competitive bidding race for some old truck, ignores the question and endeavors to interest the prospect on what transportation will eventually cost him. Our men offer a good product, sell it properly, it is backed by a concern with a chain of service stations, and by service that is prompt and reasonable. What more does a business man expect?

"If the salesman runs into the type that has junk to sell, or is not the thinking type, then the truck dealer who is willing to pay high prices for junk gets the business. We do not want any business that will not show a reasonable profit."

There is no used truck problem with the Hayden concern. At the time the writer called there were but four used

vehicles among the three places. From January this year to about the middle of May, 50 used vehicles were moved, and at a fair profit. The trade-in truck is priced right when bought. It is then placed in first class mechanical condition, repainted and sold with a guarantee. Records are kept, of course, of the transaction, rather complete detail so that the history of each truck is obtainable if necessary.

The rebuilt and guaranteed trucks have proven good business builders. There is always a market for a truck in good condition and, if the customer is given a square deal, he is a live prospect for the repeat and without any great sales expense. The Hayden policies have built up the fleet business and in Bridgeport alone there are 18 fleets some of 12. Four of these fleet owners maintain their own service departments. Mechanics trained in the trucks sold by the Hayden company are employed, and Hayden stated every possible assistance was given these concerns. From a cost and service standpoint the service had worked out very satisfactorily.

Mention should be made of a Hayden rule that is strictly enforced. It is that knocking the other truck or the truck of the prospect is prohibited. I do not countenance any of my employees, particularly the salesmen, speaking ill of a competitor's truck.

My salesmen are out to sell our product, our company and our service. The other day one of our salesmen

made an unexpected sale which was the result of the courteous treatment of the competitor. The prospect asked what kind of a truck Mr. Blank handled. My salesman spoke well of the truck and the dealer. The prospect said: "Hum. I guess you get the order. The other salesman knocked H-ll out of yours."

Another Hayden rule is that no salesman can tell a user that his truck is ready for the junk pile, will cost a lot of money to fix up and the usual line to get an order for a new. It is the policy to give the old truck an honest inspection, an honest estimate and to advise the customer for his best interests.

It is the enforcement of such policies, and others, that have run a small business up to three quarters of a million gross in four years. The Hayden Automobile Company merchandises and services the Reo and Pierce-Arrow lines of trucks.

H. O. Smith Heads Automotive Division

Harold O. Smith, who for the past 30 years has been actively identified with the automotive industry, has been appointed chief of the Automotive Section of the United States Department of Commerce, taking the position formerly held by Percy Owen, who resigned to go with Dodge Brothers, Inc.,

C. C. J. SHOP IDEAS

THIS page is primarily designed to help service station repairmen in exacting economies in time, labor and money. Salesmen, however, can also profit by scanning over these practical hints. The average buyer of today is more conversant with the important details of truck operation and maintenance than ever before. A money-saving idea will often result in a sale.

Commercial Car Journal will pay as much as five dollars for each new idea which it accepts. Simply tell us exactly how it is done and send a rough pencil sketch showing clearly the method employed or the device used.

No. 94. Drilling Upward

Securing sufficient upward pressure is difficult when an electric drill is used beneath a chassis. The sketch shows a way to obtain the necessary force. A small groove, to receive the handle of the drill is made in the end of a timber. A block of wood under the timber acts as a fulcrum.—Charles Boehme, Brooklyn, N. Y.

No. 95. Removing Pinion Shaft Nut

A short handle open end wrench may be used to remove a rear axle pinion shaft nut, after differential has been removed. While the end of the wrench is against one of the bearing bosses the transmission is put in reverse and the engine turned over by the crank.

No. 96. Valve Rack

Collapsible ends feature the valve rack board illustrated. The ends are hinged to the main board and, when in use, held in place by brackets. Marked holes for valves are drilled in the board in the usual manner.—Frank Harazin, New York City.

No. 97. Attention-Attracting Grease Cups

Painting all grease cups bright red is an effective means of securing thorough lubrication of chassis parts. The bright color eliminated the possibility of any being overlooked, especially those in rather inaccessible places.—F. W. Sheets, Harrisburg, Pa.

No. 98. Steering Yoke for Engine Lifting

Steering tie-rod yoke ends can be used to make engine lifting attachments, as shown in our drawing. Each yoke is cut off and the hole bored out, if necessary. In use the yoke is put over a cylinder head stud and fastened with a stud nut. The chain ends are fastened to the original steering arm bolts through the yoke ends.—Fred Codd, Chicago, Ill.

No. 99. Mechanics' Tool Box

A passenger car running board tool box may easily be reconditioned to serve as a mechanics' tool box. A handle on the lid and a hasp and staple for locking are the essential changes.—R. G. Dasse, Burlington, N. J.

Rust-Preventing Lacquer

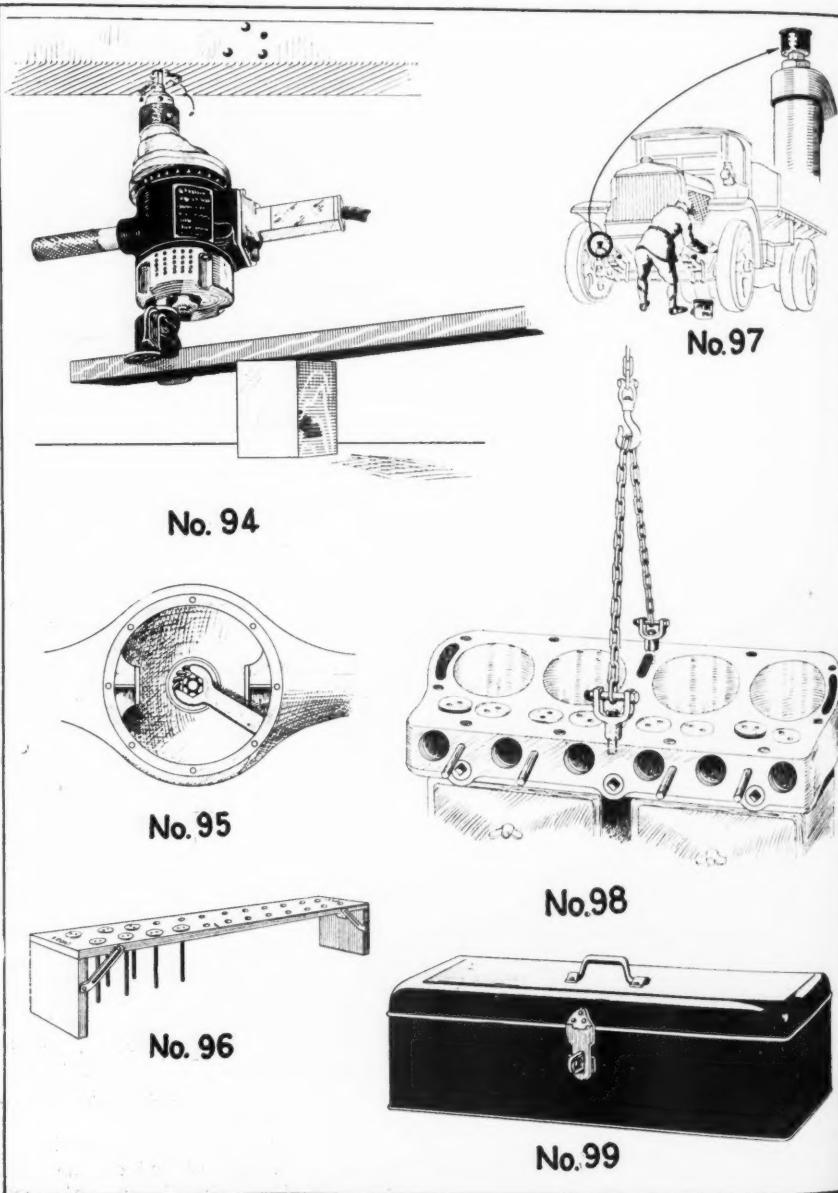
A transparent hard drying lacquer for coating parts such as piston rings and drills to prevent rust while in storage has been placed on the market by Bradford Oil Co., Palmer, Mass. The new product, designated "Trans Lac Special" dries within one-half hour. Bradford products are sold under the trade name of Cedaroleum Anti-Rust compounds. In addition to Trans Lac Special the company makes other grades adapted for application to heavy machinery in storage, for export shipments, castings, fine tools and outdoor storage of machinery.

Trucks at Bottlers' Convention

Nine truck and body companies will exhibit during the Buffalo convention of the American Bottlers of Carbonated Beverages, Nov. 8 to 12. These include White Motor Co., Republic Motor Truck Co., Inc., International Harvester Co., General Motors Truck Co., Highland Body Mfg. Co., Graham Brothers, Federal Motor Truck Co. and Cleveland Pneumatic Tool Co.

Hill Mill Equipment Catalog

A new catalog listing shafting, bearings and power transmission machinery has been issued by Hill Clutch Machine & Foundry Co., Cleveland, Ohio. The catalog is in three sections. Section A describes flexible couplings and the "Cleveland type" oil film bearing. B covers clutch pulleys and cutoff couplings. C describes rope drives, gears, speed transformers, and tables of engineering data are also given.



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News of the Trade

Exhibitors Lining Up Rapidly for National Shows

More than 100 manufacturers of parts, accessories and service equipment have already signified their intention of exhibiting at the National Automobile Shows at New York and Chicago next January and February. It is likely that the exhibitors outside the car and truck and taxicab sections will aggregate 200 or 300 manufacturers.

Shop equipment items already on the exhibit list include heavy machinery such as cranes, presses, hoists, towing apparatus, electric tools, electric charging and testing apparatus, air compressors and devices driven by air, jacks, welding and cutting equipment, cylinder boring and grinding machinery, wrenches and other speedy tools.

Plans are under way to tell the story of the shop equipment sections to wholesale and retail units throughout the service industry. The resulting trade attendance will benefit parts and accessory makers as well as the shop equipment manufacturers.

Space allotments to car, truck and taxicab manufacturers will be made at the N. A. C. C. members' meeting October 7, and assignments in the parts, accessory and shop equipment sections shortly after that date.

The coming National Automobile Shows will give a decided impetus to the enlightenment of the industry and the public on the advantages of modern service equipment, in the opinion of S. D. Black, president of the Black & Decker Manufacturing Co., and a director of the Motor and Accessory Manufacturers Association. Mr. Black believes that the shop equipment sections in the shows at New York and Chicago next January and February will emphasize in a spectacular way the opportunities for dealers to put their profits on a more substantial basis through the use of machinery and tools designed to make repair and adjustment work speedy and accurate.

Road Show Attracts Wide Interest

Applications for exhibition space at the Road Show and other indications point to even wider interest than during previous years in the annual convention of the American Road Builders' Association, to be held in Chicago during Good Roads Week, Jan. 10 to 14 next, according to officials of the association's national headquarters in Washington.

Headquarters will be opened Dec. 10, by the association, at the New Palmer House, to take care of the pre-convention arrangements.

H. G. Shirley, president of the association and chairman of the Virginia

Highway Commission, has arranged several new features for the program. These include a "Pan-American Day," at which delegates from North, Central and South American countries will hold the center of the stage with their exhibits and in various addresses. This day will be observed Jan. 12. Jan. 11 will be "Governor's Day" at which state executives from various parts of the country, particularly those identified with the good roads movement, will be special guests.

Provisions have been made to accommodate 2000 at the annual banquet of the convention.

North East Service Inc. held its Sixth Annual Sales and Service Convention recently, at the home office in Rochester, N. Y. Plans were laid for wider and more intensive distribution of the Northeaster horns and for further expansion of the service organization.

Coming Events

SHOWS

Boston, Mass.	March 5-12
Mechanics' Bldg.	
Chicago	Nov. 8-13
Coliseum, Automotive Equipment Association.	
Chicago	Nov. 15-19
Hotel Sherman, National Standard Parts Association.	
Chicago	Jan. 10-15
Coliseum, American Road Builders' Association.	
Cleveland	Jan. 22-29
Public Auditorium.	
Dallas, Texas	Oct. 9-24
Auditorium Bldg.	
Kansas City, Mo.	Feb. 12-19
Montreal, Can.	Jan. 22-29
National Motor Show of Eastern Canada, Morgan Bldg.	
New York	Oct. 20-30
Electrical and Industrial Exposition, Grand Central Palace.	
New York	Jan. 8-15
National, Grand Central Palace, National Automobile Chamber of Commerce.	
Seranton, Pa.	Jan. 19-22
Armory.	
Springfield, Ill.	Oct. 28-29
Second Annual Bus Show, State Armory, Illinois Motor Transportation Association.	
Wichita, Kans.	Feb. 22-25
Southwest Road Show, Wichita Thresher and Tractor Club, Inc.	

CONVENTIONS

American Road Builders' Association, Congress Hotel, Chicago	Jan. 10-15
Automotive Equipment Association, Coliseum, Chicago	Nov. 8-13
National Standard Parts Association, Hotel Sherman, Chicago	Nov. 15-19
National Tire Dealers' Association, Inc., Memphis, Tenn.	Nov. 16-18
Society of Automotive Engineers, National Transportation and Service Meeting, Boston, Mass.	Nov. 16-18

COMING FEATURE ISSUES OF CHILTON CLASS JOURNAL PUBLICATIONS

Nov. 4—Motor World Wholesale—Annual Marketing Issue.
Dec. 10—Operation and Maintenance—Service Station Equipment Issue.
Dec. 15—Commercial Car Journal—Good Roads Issue.
Jan. 1—Automobile Trade Journal—Annual Show Issue.
Jan. 6—Motor Age—Annual Show Issue.
Jan. 15—Commercial Car Journal—New York Show Issue.

Truck Equipment Association Elects New Officers

The Annual Meeting of "Equipment for Motor Truck, Inc." was held in Buffalo, recently. It was the unanimous opinion of those present that the organization was a much needed one in the industry and that it would be in a short time a big factor in the bringing about standardization of Motor Truck Equipment. Already in the short space of one year the organization has caused a better feeling and understanding between the distributor and manufacturer of Motor Truck Equipment. Both manufacturer and distributor of equipment are eligible to membership in this organization.

The directors and officers for this new year are as follows:

Directors: Wm. Morrison, Chairman, Highland Body Co., Cincinnati, Ohio; Jacob Press, Jacob Press Sons, Chicago, Ill.; C. F. Tiers, The Schnable Co., Pittsburgh, Penna.; W. R. Couch, Interboro Hoist & Body Corp., Long Island City, New York.

Officers: President, W. R. Couch, Interboro Hoist & Body Corp., Long Island City, New York; 1st vice-President, P. E. O'Connor, Columbian Steel Tank Co., Kansas City, Mo; 2nd Vice-President, C. F. Tiers, The Schnable Co., Pittsburgh, Pa.; Treasurer, E. R. Boeck, Truck Equipment Co., Inc., Buffalo, N. Y.; Secretary, Geo. M. Bunn, General Woodwork Corp., Cincinnati, Ohio.

Wm. G. Mayer of the Mayer Body Corp., 6461 Frankstown Ave., Pittsburgh, Penna., has been appointed Chairman of the Membership Committee by the President for the year 1926-1927.

\$1,000,000 Bus Consolidation

The Reo Bus Line Co., the Red Star Transportation Co., Lexington, Ky.; the White Star Bus Lines of Winchester, and the Safety Motor Carriers of Louisville, recently consolidated into a \$1,000,000 corporation. General offices will be located in Lexington with an eastern terminal at Ashland, Ky., a western terminal at Louisville and branch offices in all the terminal cities and principal towns touched by the system. The lines cover 1000 miles of territory and will be extended as required.

A recent addition to the operations of the Federal Motor Truck Co., Detroit, manufacturers of Federal trucks, is the body building plant which is now turning out fifty bodies and cabs a day. A large stamping division, recently started, is making parts for cabs and bodies.



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